TABLE 44.—SHOWING FOR CERTAIN GROUPS OF AGES THE NUMBER OF DEATHS FROM CROUP, AND THE PROPORTION OF DEATHS FROM THIS CAUSE TO 1,000,000 DEATHS AT THE CORRESPONDING AGE GROUPS, WITH DISTINCTION OF SEX, OF RURAL AND CITIES, AND, FOR CERTAIN REGIONS, OF COLOR AND PARENTAGE.

Deaths from croup in—		DEATHS.				PROPORTION IN 1,000,000 DEATHS AT CERTAIN AGES.			
		Under 5.	5–15.	15–65.	65 and over.	Under 5.	5–15.	15–65.	65 and over.
The United States	M.	8,512	1,105	46	7	56,642	36,517	338	133
	F.	7,079	1,048	57	13	55,490	32,499	412	271
Rural	M.	7,148	871	37	5	64,745	32,538	355	112
	F.	5,911	812	47	13	63,311	29,851	427	333
Cities	M.	1,364	204	9	2	34,208	57,265	232	258
	F.	1,168	230	10	.....	34,145	46,779	356	.....
White in 10 Grand Groups	M.	4,181	498	16	4	61,028	38,530	252	162
	F.	3,454	439	24	6	59,153	34,551	369	260
Colored in 10 Grand Groups	M.	1,094	30	4	1	48,234	6,052	249	238
	F.	926	41	6	1	40,316	8,187	306	243
Irish parentage in 14 Grand Groups	M.	321	63	4	.....	49,068	40,541	318	.....
	F.	272	55	.....	.....	49,293	38,301	.....	.....
German parentage in 14 Grand Groups	M.	383	92	3	.....	49,109	53,488	317	.....
	F.	363	71	5	3	55,812	48,585	713	1,280

The geographical distribution of the deaths reported as due to these causes for the whole United States is shown by Maps Nos. 3 and 4, and also by the following tables and diagrams:

TABLE 45.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM DIPHTHERIA IN 1000 DEATHS FROM KNOWN CAUSES.

Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	54.4	60.0	36.0	41.5	39.8	17.4	42.1	72.7
1. North Atlantic Coast region	52.0	55.5	46.2	47.2	.....	.....	43.2	73.9
2. Middle Atlantic Coast region	27.3	29.9	30.6	35.7	34.2	14.3	31.5	20.2
3. South Atlantic Coast region	52.6	47.6	26.2	10.0	60.1	30.8	.....	.....
4. Gulf Coast region	11.1	11.9	10.0	14.4	14.5	7.9	.....	.....
5. Northeastern Hills and Plateaus	69.7	77.4	18.1	18.2	.....	.....	48.1	46.3
6. Central Appalachian region	96.5	113.0	47.0	33.6	.....	.....	67.5	115.1
7. Region of the Great Northern Lakes	78.2	93.2	72.8	84.1	.....	.....	31.7	108.0
8. The Interior Plateau	67.1	68.5	33.2	39.6	64.6	19.8	42.5	78.3
9. Southern Central Appalachian region	31.2	32.3	.....	.....	37.5	13.1	.....	.....
10. The Ohio River Belt	28.5	32.6	23.3	28.7	31.5	5.7	21.3	20.7
11. Southern Interior Plateau	22.5	22.1	.....	.....	27.9	13.1	.....	.....
12. South Mississippi River Belt	10.0	10.2	.....	.....	7.3	11.3	.....	.....
13. North Mississippi River Belt	51.0	55.5	22.4	28.1	.....	.....	45.9	59.2
14. Southwest Central region	11.9	13.0	.....	.....	12.7	11.1	.....	.....
15. Central region, plains and prairies	41.3	49.6	22.9	18.5	46.3	29.6	.....	.....
16. The Prairie region	94.9	99.5	.....	.....	.....	.....	79.9	137.8
17. Missouri River Belt	80.0	86.7	48.0	29.4	.....	.....	84.3	92.4
18. Region of the Western Plains	70.7	99.5	76.3	171.2	.....	.....	38.9	211.2
19. Heavily-timbered region of the Northwest	120.1	110.9	.....	.....	.....	.....	74.2	123.5
20. Cordilleran region	33.2	157.3	.....	.....	.....	.....	38.0	24.7
21. Pacific Coast region	50.3	71.3	18.2	18.2	.....	.....	19.1	37.4

FIG. 34.—DEATHS FROM DIPHTHERIA IN 21 GRAND GROUPS, WITH DISTINCTION OF SEX, PER 1000 DEATHS FROM KNOWN CAUSES.

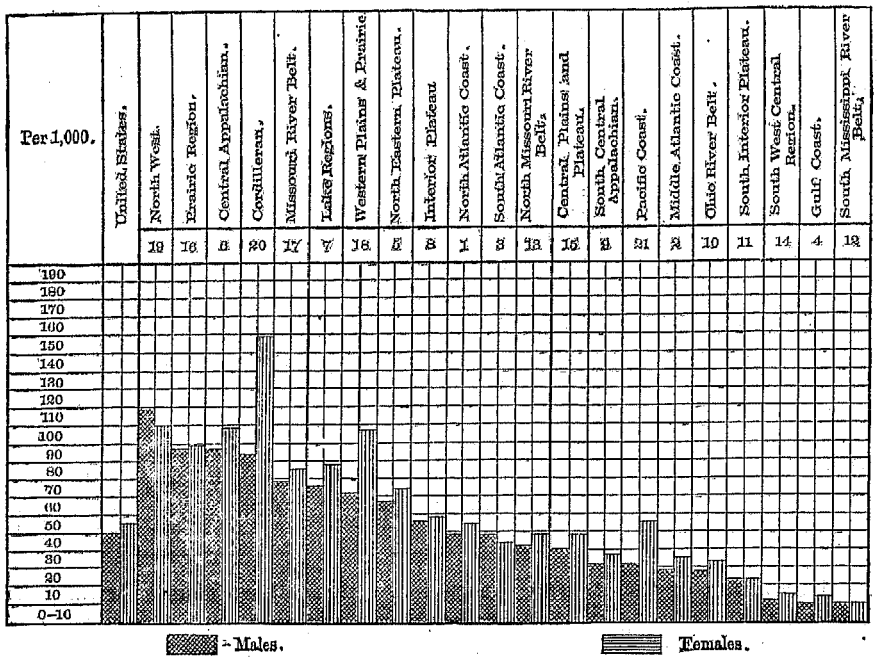
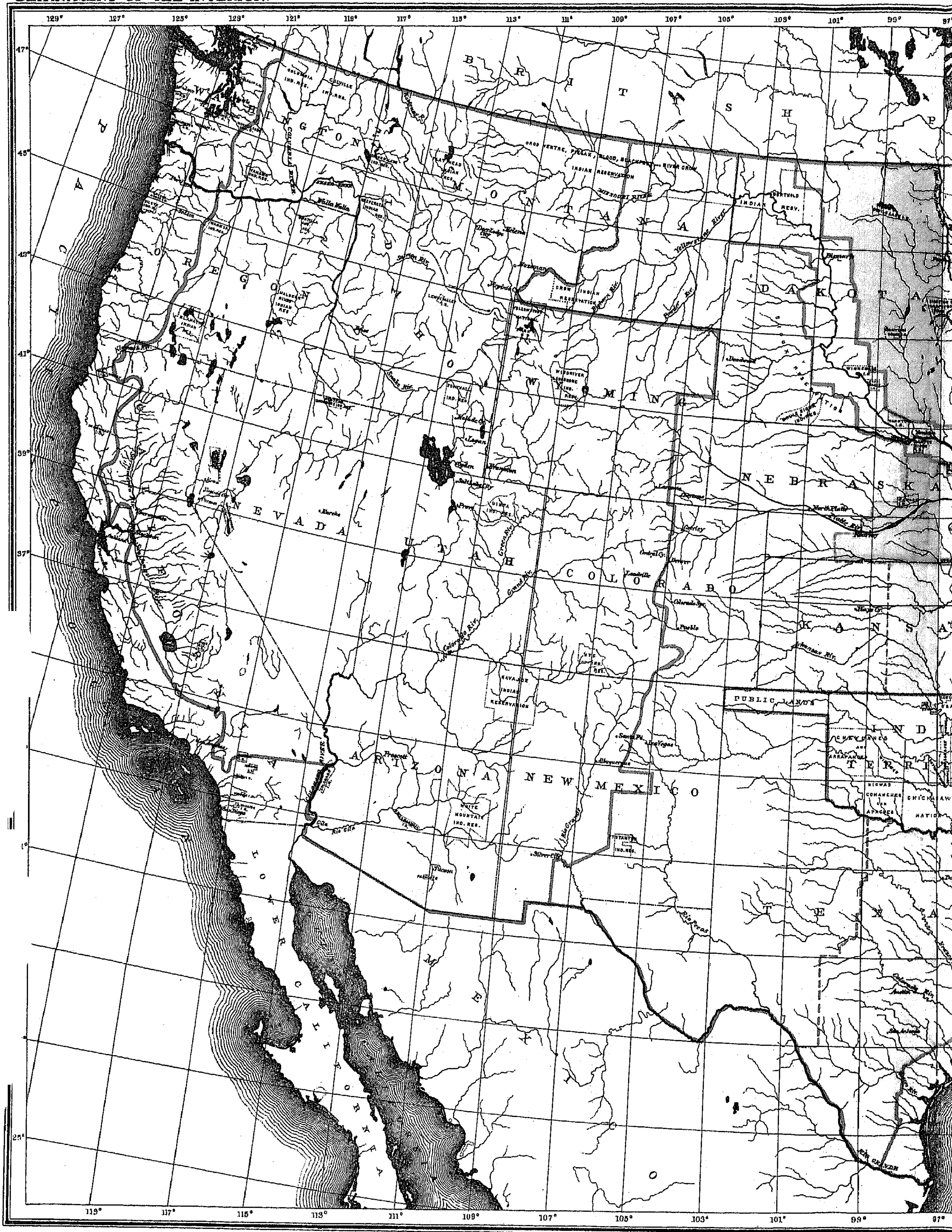


TABLE 46.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM CROUP IN 1000 DEATHS FROM KNOWN CAUSES.

Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	28.1	25.1	19.6	18.4	26.1	21.8	15.1	23.2
1. North Atlantic Coast region	18.2	14.6	19.9	17.8	.....	.....	15.3	29.2
2. Middle Atlantic Coast region	20.4	17.9	20.1	19.1	20.5	12.2	14.0	21.5
3. South Atlantic Coast region	13.7	9.8	4.7	2.4	14.0	8.6	.....	.....
4. Gulf Coast region	16.8	16.9	7.4	9.2	16.2	10.4	.....	.....
5. Northeastern Hills and Plateaus	17.7	15.0	14.9	9.7	.....	.....	16.0	25.7
6. Central Appalachian region	25.2	22.4	47.0	40.3	.....	.....	19.5	22.3
7. Region of the Great Northern Lakes	23.6	20.1	34.9	30.9	.....	.....	15.1	30.6
8. The Interior Plateau	20.5	19.0	18.8	15.5	19.2	17.6	19.2	14.5
9. Southern Central Appalachian region	59.8	48.4	.....	.....	59.5	35.6	.....	.....
10. The Ohio River Belt	22.1	21.2	10.4	10.2	19.4	11.7	3.6	14.7
11. Southern Interior Plateau	35.4	26.0	.....	.....	35.7	26.9	.....	.....
12. South Mississippi River Belt	19.0	20.2	.....	.....	18.8	20.0	.....	.....
13. North Mississippi River Belt	30.2	31.4	7.2	12.5	.....	.....	18.7	25.1
14. Southwest Central region	35.8	31.8	.....	.....	34.1	32.9	.....	.....
15. Central region, plains and prairies	29.8	25.7	10.8	13.5	26.9	27.4	.....	.....
16. The Prairie region	35.4	32.0	.....	.....	.....	.....	14.6	24.8
17. Missouri River Belt	31.6	32.3	36.7	33.0	.....	.....	10.2	29.9
18. Region of the Western Plains	20.3	24.8	17.3	27.6	.....	.....	38.9	28.1
19. Heavily-timbered region of the Northwest	24.8	14.9	.....	.....	.....	.....	13.3	40.1
20. Cordilleran region	14.0	21.1	.....	.....	.....	.....	6.3	10.6
21. Pacific Coast region	10.6	10.5	6.9	10.7	.....	.....	16.7	10.9

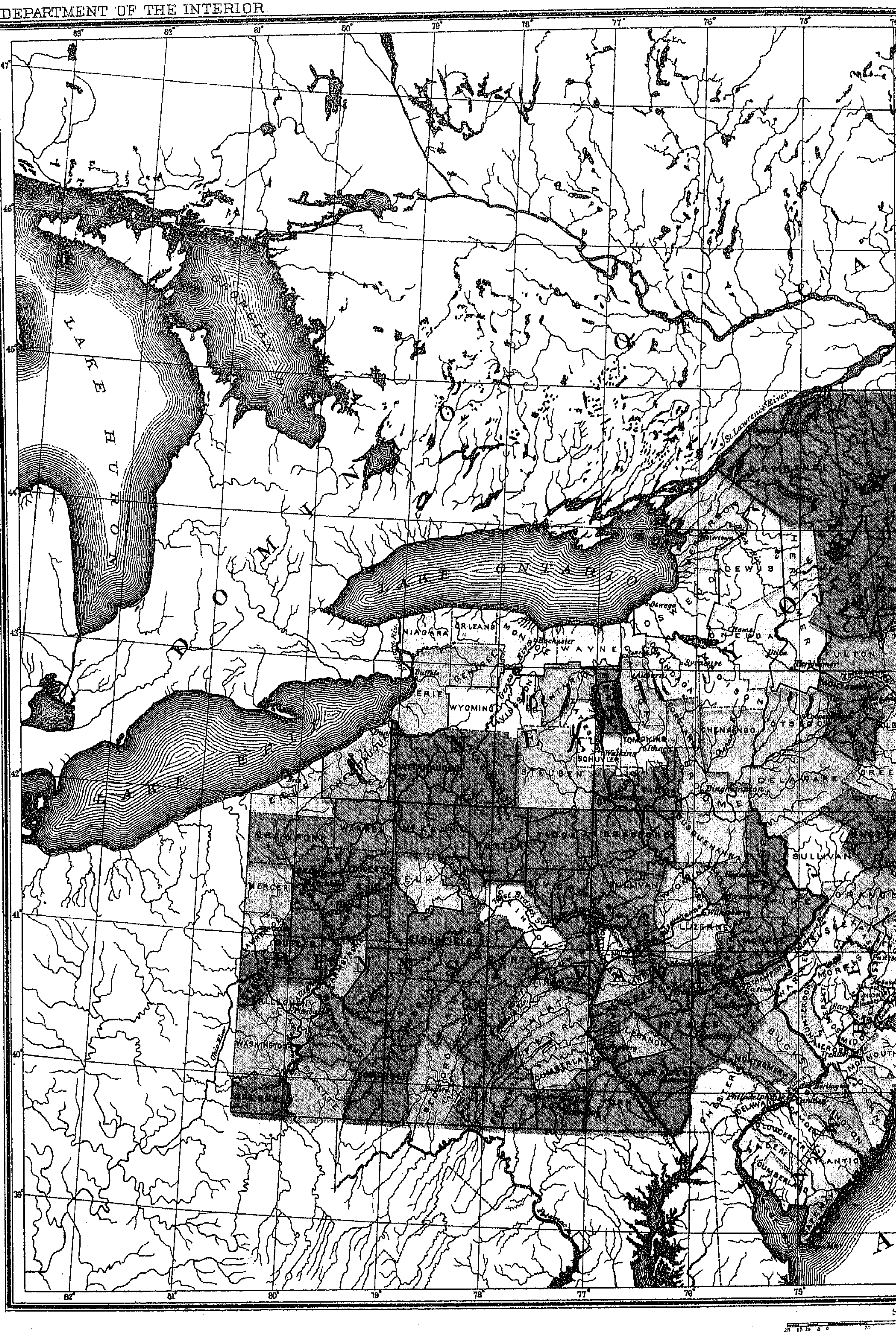
Sheet


BRITISH POSSESSIONS
WASHINGTON
OREGON
IDAHO
MONTANA
WYOMING
DAKOTA
NEBRASKA
NEVADA
UTAH
COLORADO
KANSAS
CALIFORNIA
ARIZONA
NEW MEXICO
TEXAS
INDIAN TERRITORY
PUBLIC LANDS
MEXICO
LOWER CALIFORNIA
Walla Walla
Helena
Bozeman
Ogden
Salt Lake City
Provo
Evanston
Cheyenne
Laramie
Denver
Leadville
Colorado Spr.
Pueblo
Santa Fe
Las Vegas
Albuquerque
Prescott
Tucson
Silver City
Austin
San Antonio
Bismarck
Deadwood
North Platte
Colorado Riv.
Green Riv.
Grand Riv.
Snake Riv.
Yellowstone River
Missouri River
Columbia River
Platte Riv.
Arkansas Riv.
Rio Grande
Rio Pecos
Rio Gila
Powder Riv.
Bighorn Riv.
Navajoe Indian Reservation
White Mountain Ind. Res.
Crow Indian Reservation
Wind River Shoshone Ind. Res.
Uinta Ind. Res.
Klamath Indian Res.
Malheur River Indian Res.
Colville Ind. Res.
Flathead Ind. Res.
Gros Ventre, Piegan, Blood, Blackfeet & River Crow Indian Reservation
Berthold Indian Resv.
Cheyennes
Arrapahoes
Kiowas
Comanches and Apaches
Chickasaw Nation
Eureka
Yellowstone National Park
129° 127° 125° 123° 121° 119° 117° 115° 113° 111° 109° 107° 105° 103° 101° 99° 97°
47° 45° 43° 41° 39° 37° 25°


MAP OF THE
UNITED STATES
SHOWING THE
DISTRIBUTION OF DEATHS
FROM
CROUP
AS COMPARED WITH TOTAL DEATHS
FROM KNOWN CAUSES.
—Under 20 per 1000.
— 20 to 29 "
— 30 to 39 "
— 40 to 59 "
— 60 and over "

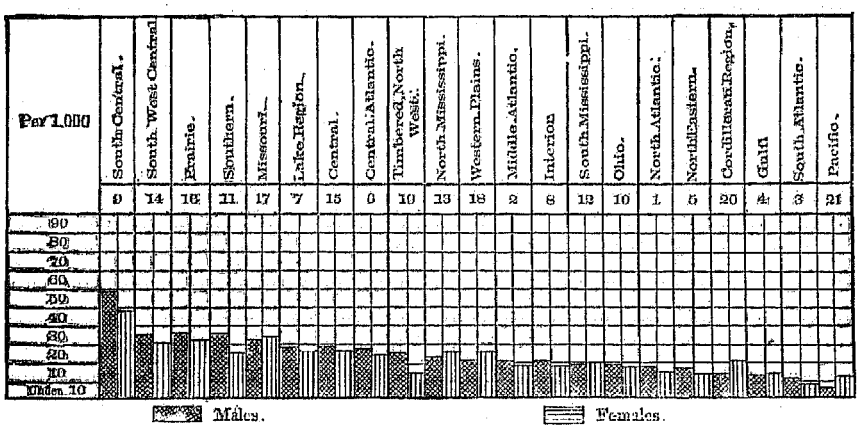
Sheet N

DEPARTMENT OF THE INTERIOR.




MAP
OF A PART OF THE
UNITED STATES,
SHOWING BY COUNTIES
THE PROPORTION OF DEATHS
FROM
DIPHTHERIA
TO TOTAL NUMBER OF DEATHS FROM
KNOWN CAUSES.
—Under 20 per 1000.
— 20 to 39 "
— 40 to 59 "
— 60 to 79 "
— 80 to 99 "
—100 and over "
ATLANTIC OCEAN
Scale
BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D.C.

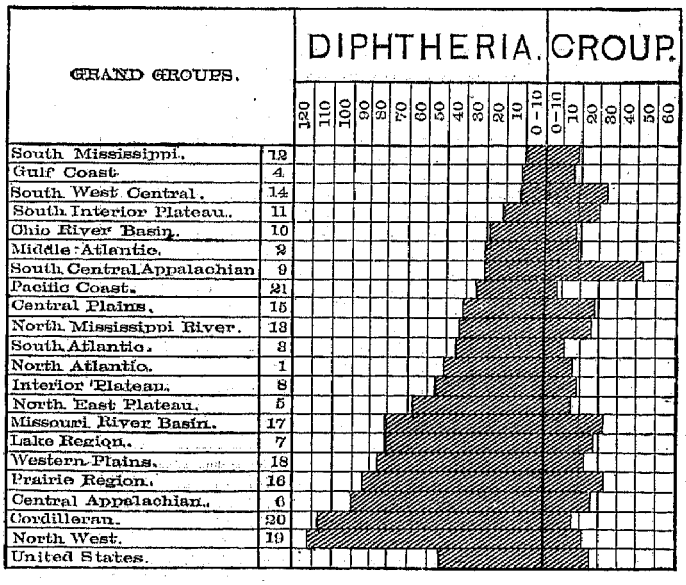
FIG. 35.—DEATHS FROM CROUP IN 21 GRAND GROUPS, WITH DISTINCTION OF SEX, PER 1000 DEATHS FROM KNOWN CAUSES.



It will be seen that diphtheria prevailed chiefly in the North, and especially in the northern part of Maine, the northeastern part of New York, the central portions of Pennsylvania, the interior of Michigan and Wisconsin, the north Missouri valley, and in the northwestern territories, while the mortality from it was relatively low in the Ohio and Mississippi valleys and in the South. The distribution of croup affords somewhat of a contrast to this, the greatest proportional number of deaths being reported in the mountain regions of Virginia, Kentucky, North Carolina, Tennessee, and Georgia, and in the eastern part of Nebraska and Dakota, while the mortality is comparatively low in New England, the south Atlantic coast, the Gulf coast, and the Mississippi valley. It corresponds with diphtheria in showing a greater rate of prevalence in northeastern New York and central Pennsylvania than in the surrounding country. How far these apparent differences between the distribution of croup and that of diphtheria are due to the fact that they are really different diseases, depending upon different causes, and having different relations to topographic and climatic peculiarities, and how far they are due to the fact that the same disease receives different names in different localities and from physicians differently educated, are questions which can not be answered from the data of the census.

The following diagram shows the relative proportions of deaths reported as due to diphtheria and croup for each grand group, those for diphtheria being arranged in the order of magnitude. It will be seen that there are great irregularities, and that there is, upon the whole, no general correspondence in the relative prevalence of the two by regions; that is, that where the proportions of death reported as due to diphtheria are great, the proportions due to croup may be either great or small. The greatest variations in this respect exist in the Southwest Central, Southern Central Appalachian, Southern Interior Plateau, and the Central Plains regions. It seems fairly probable that the variations indicated on this diagram are, to a great extent, due to the difference in the nomenclature used by the physicians and the people in different regions:

FIG. 36.—DEATHS FROM DIPHTHERIA AND CROUP, IN 21 GRAND GROUPS, PER 1000 DEATHS FROM KNOWN CAUSES.

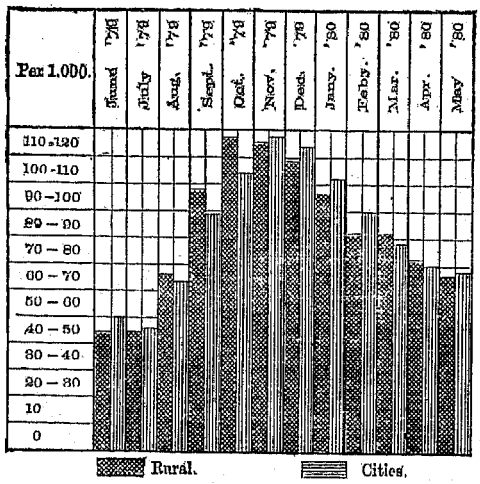


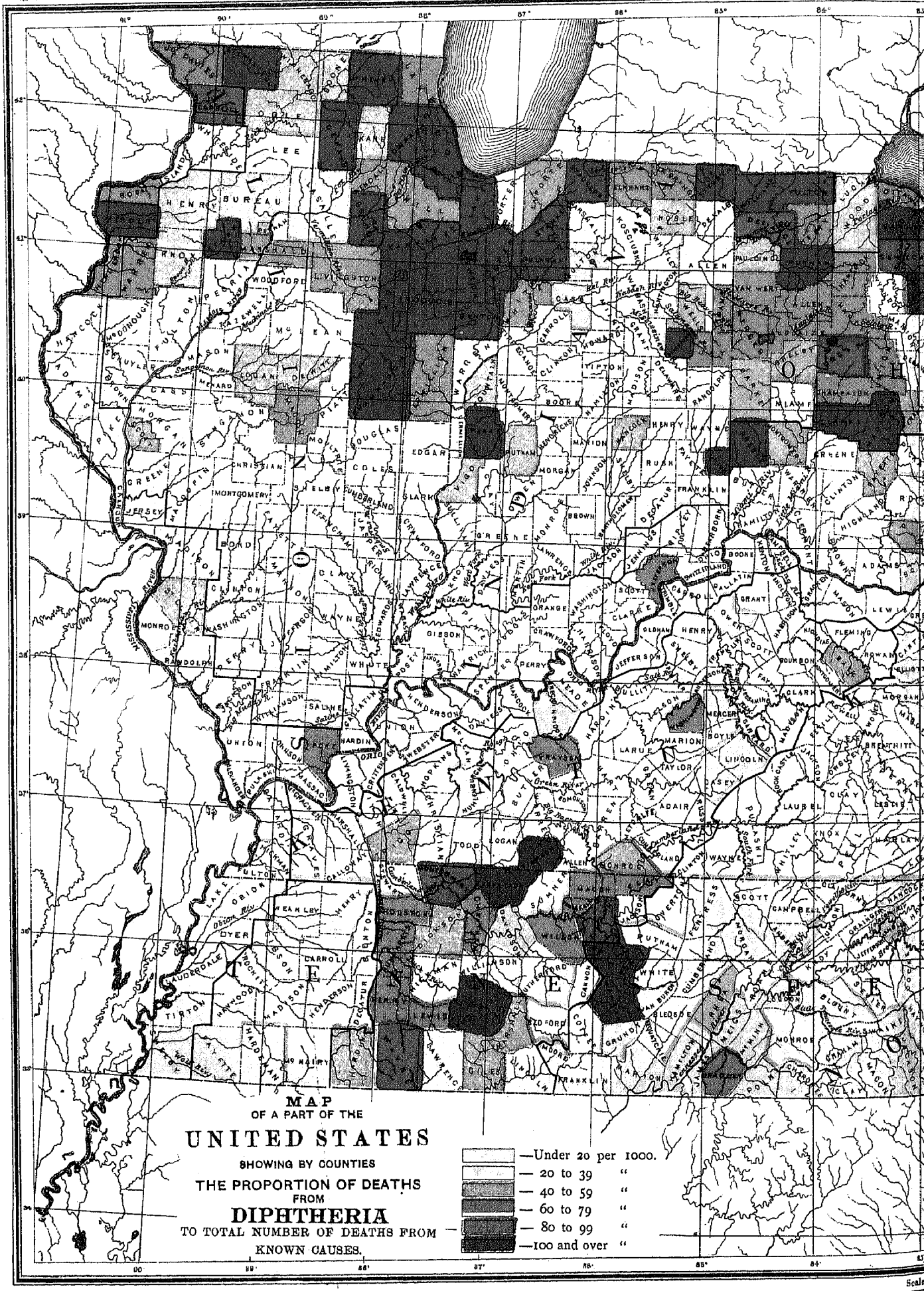
Diphtheria we know to be a disease that is spread by contagion. It is often asserted that it is a filth disease, meaning thereby that it is caused by inhaling or swallowing some of the products of the decomposition of organic matter. That it is a filth disease in so far as want of cleanliness and of proper removal of excreta and the use of water, milk, etc., contaminated by excreta, tends to promote the conveyance of the cause of the disease from one person to another there is little reason to doubt; but that it is a filth disease in the sense that decomposing excreta may, without the addition of a specific cause, produce the disease, there is no sufficient evidence. If stored filth alone will cause diphtheria, it should prevail in nearly every county in the United States, and also throughout the civilized world, for we have no reason to suppose that American filth possesses any qualities peculiar to itself. It would seem that the proportion of deaths from this cause is less in the large cities which are sewered than in the smaller ones which rely more upon cesspools and privy-vaults; it is only in the cities of New Orleans and Denver that the proportion of deaths from diphtheria exceeds that of the surrounding region, and neither of these is sewered. The importance of diphtheria in a sanitary point of view is so great, and the information which we have with regard to its relative prevalence in different localities in this country is so defective, that it has been thought worth while to give quite fully the census data with regard to it. For this purpose Maps Nos. 5, 6, 7, and 8 have been prepared, showing the distribution of the deaths reported as occurring from this disease by counties in the northern and eastern portions of the country, and with the same object in view, Table XXXIII is given, showing for each grand group, with the exclusion of fifty cities, the deaths from diphtheria with distinctions of sex, age, color, parentage, and months of death. An examination of these county maps indicates very distinctly the occurrence of a large number of small, comparatively localized epidemics, and that the disease can not be due to any peculiarity of climate, of geological formation, of topography, or of methods of filth-disposal. The following table and diagram show the distribution by months of the deaths reported as due to diphtheria in 50 cities and rural districts:

TABLE 47.—SHOWING DEATHS FROM DIPHTHERIA IN CITIES AND RURAL DISTRICTS, WITH DISTINCTION OF MONTHS.

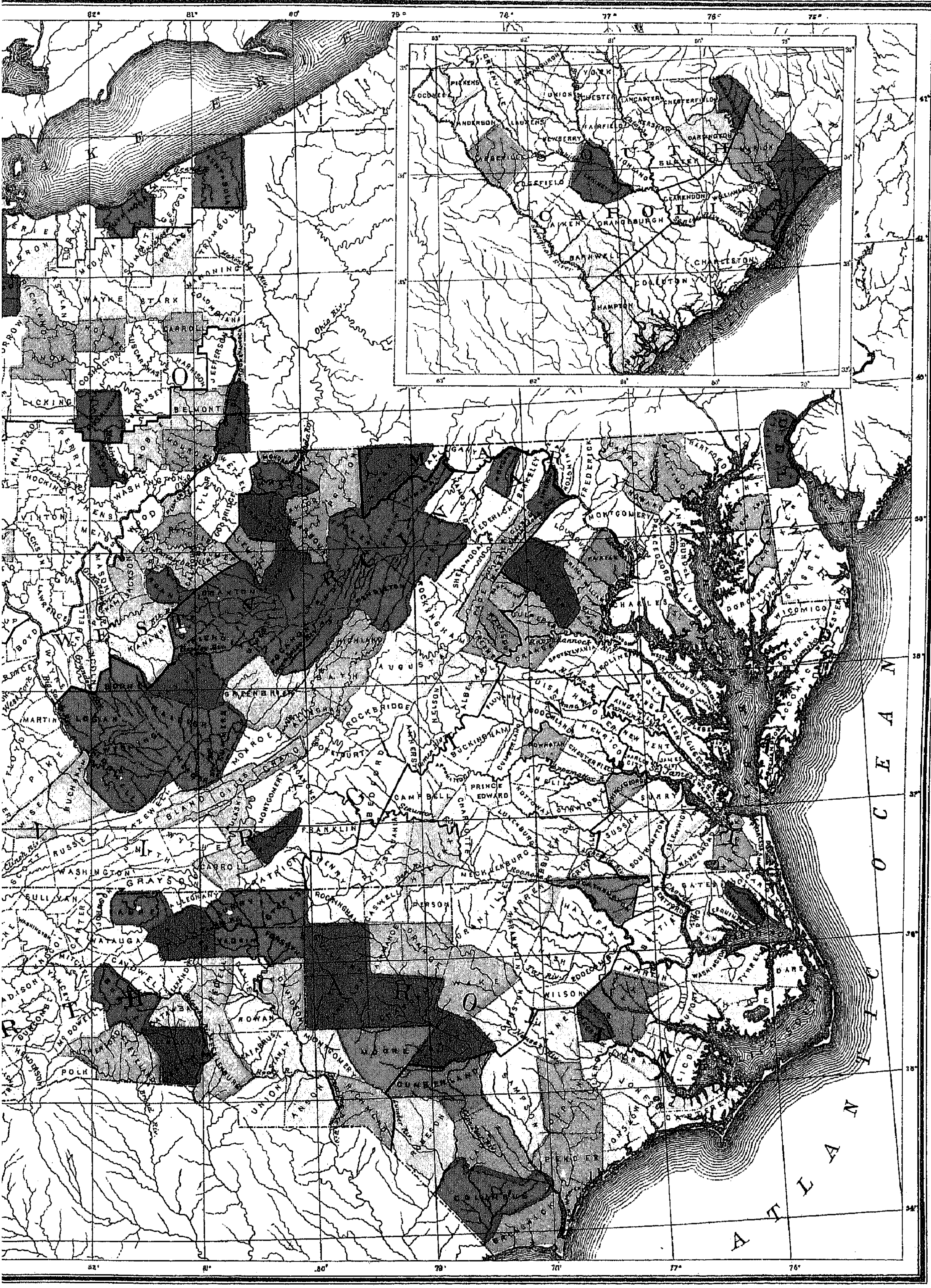
Months.	DEATHS FROM DIPHTHERIA.			PER 1000 DEATHS FROM DIPHTHERIA.		
	Total.	Rural.	Cities.	Total.	Rural.	Cities.
Total	38,143	31,909	6,234	.....	836.56	163.43
June, 1879	1,743	1,430	313	45.96	45.11	50.25
July, 1879	1,688	1,402	286	44.51	44.23	45.92
August, 1879	2,533	2,135	398	66.79	67.36	63.90
September, 1879	3,692	3,137	555	97.35	98.97	89.11
October, 1879	4.408	3,757	651	116.23	118.22	104.52
November, 1879	4,440	3,700	740	117.07	116.73	118.81
December, 1879	4,191	3,475	716	110.51	109.63	114.96
January, 1880	3,712	3,074	638	97.88	96.98	102.44
February, 1880	3,159	2,595	564	83.30	81.87	90.55
March, 1880	3,089	2,593	496	81.45	81.81	79.64
April, 1880	2,703	2,261	442	71.27	71.33	70.96
May, 1880	2,565	2,136	429	67.63	67.39	68.88
Month unknown	220	214	6	.....	.....	.....

FIG. 37.—DEATHS FROM DIPHTHERIA, WITH DISTINCTION OF MONTH, IN CITIES AND RURAL DISTRICTS.




MAP
OF A PART OF THE
UNITED STATES
SHOWING BY COUNTIES
THE PROPORTION OF DEATHS
FROM
DIPHTHERIA
TO TOTAL NUMBER OF DEATHS FROM
KNOWN CAUSES.
—Under 20 per 1000.
— 20 to 39 "
— 40 to 59 "
— 60 to 79 "
— 80 to 99 "
—100 and over "

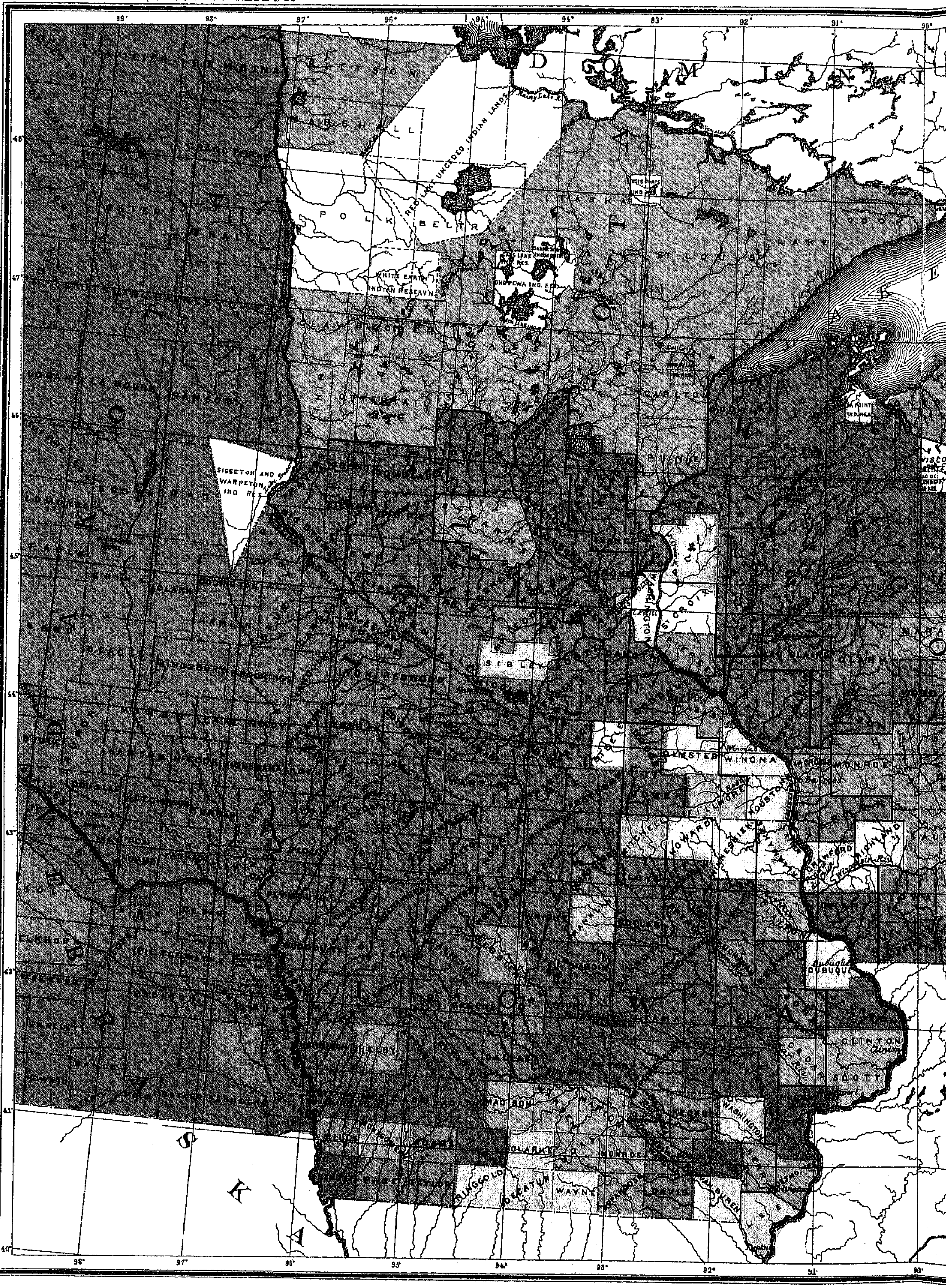
No. 6.



BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

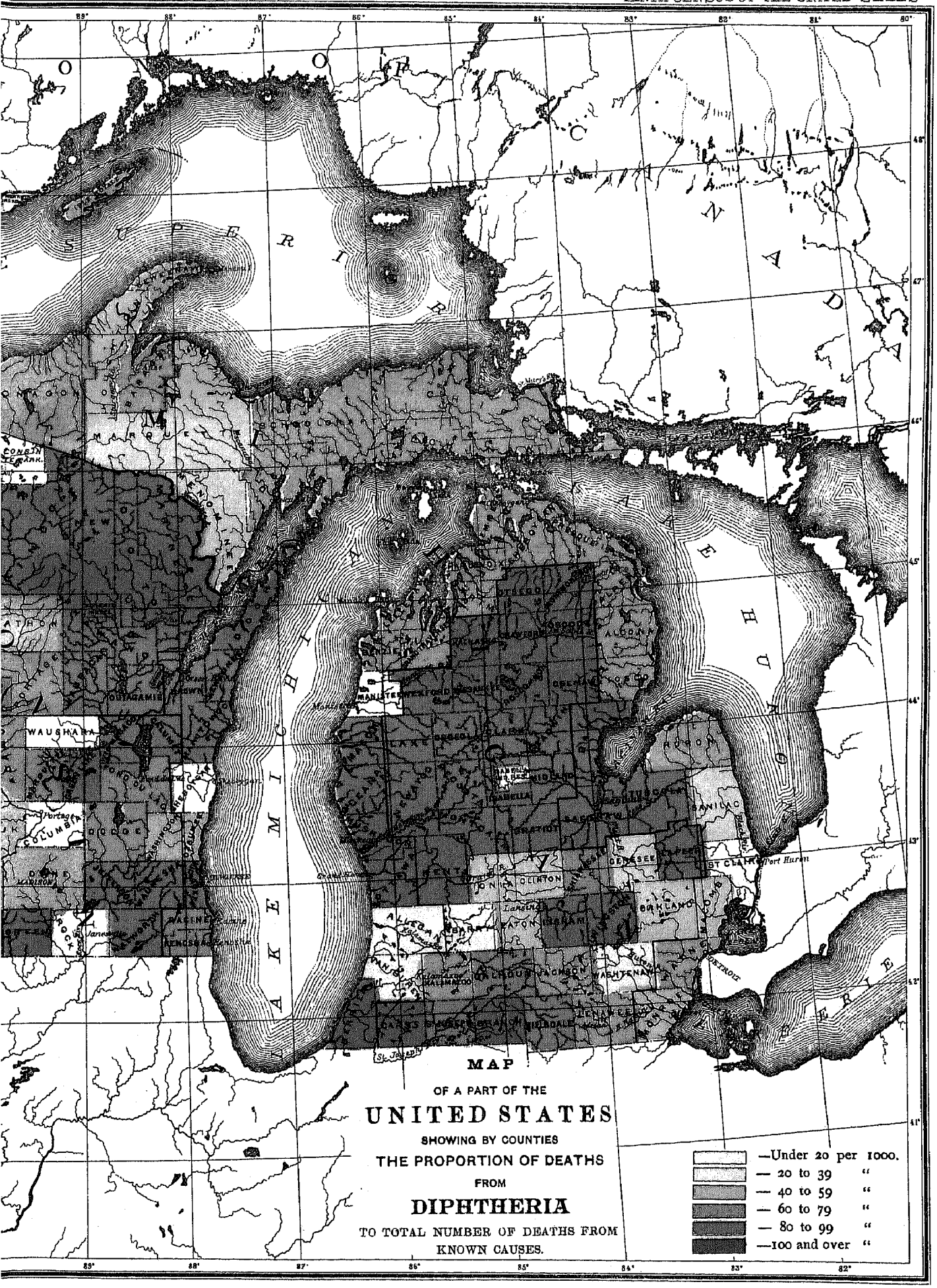
DEPARTMENT OF THE INTERIOR

Sheet N



Scale

No. 7.



MAP

OF A PART OF THE

UNITED STATES

SHOWING BY COUNTIES

THE PROPORTION OF DEATHS

FROM

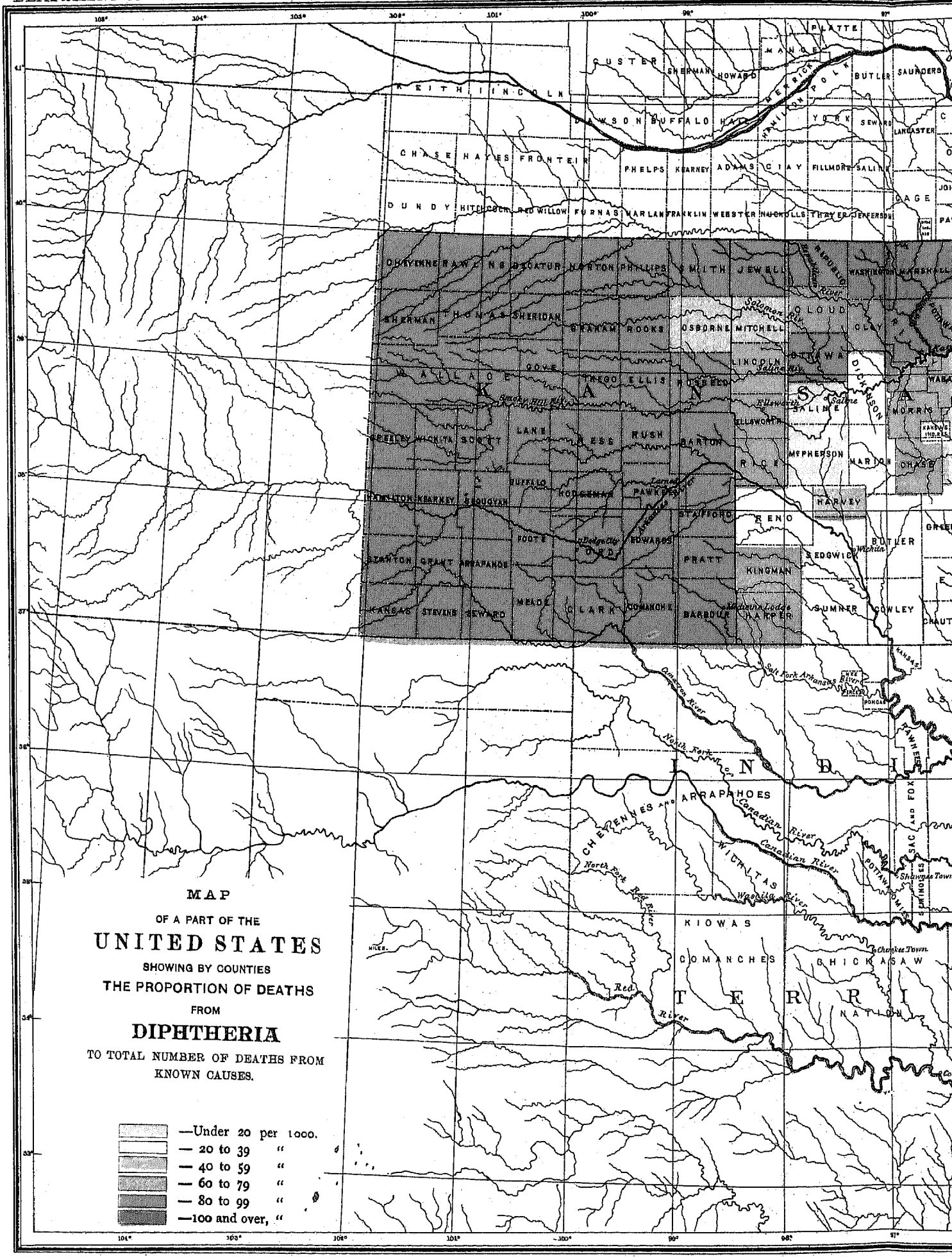
DIPHTHERIA

TO TOTAL NUMBER OF DEATHS FROM KNOWN CAUSES.

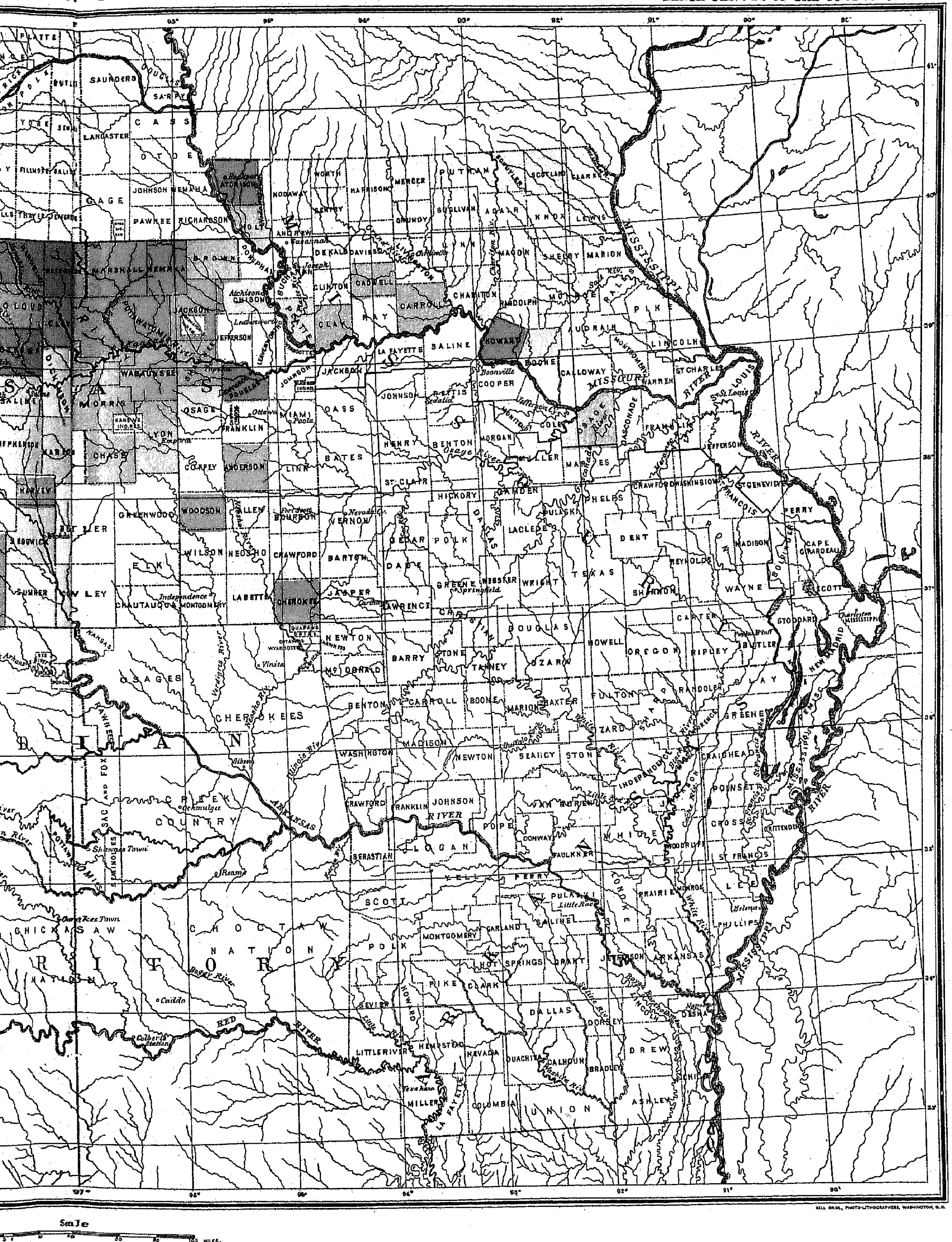
BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D.C.

DEPARTMENT OF THE INTERIOR

Sheet No



Scale


MISSISSIPPI
MISSOURI RIVER
ARKANSAS RIVER
RED RIVER
CHEROKEES
OSAGES
CREEK COUNTRY
CHOCTAW NATION
CHICKASAW NATION
SAC AND FOX
SEMINOLES
PAWNEES
PLATTE
SAUNDERS
SARPY
CASS
LANCASTER
OTOE
JOHNSON
NEMAHA
GAGE
PAWNEE
RICHARDSON
ATCHISON
HOLT
NODAWAY
WORTH
HARRISON
MERCER
PUTNAM
SCHUYLER
SCOTLAND
CLARK
GENTRY
GRUNDY
SULLIVAN
ADAIR
KNOX
LEWIS
ANDREW
DEKALB
DAVIESS
LINN
MACON
SHELBY
MARION
BUCHANAN
CLINTON
CALDWELL
CARROLL
CHARITON
RANDOLPH
MONROE
RALLS
PIKE
PLATTE
CLAY
RAY
AUDRAIN
LINCOLN
MARSHALL
NEMAHA
BROWN
DONIPHAN
JACKSON
JEFFERSON
LEAVENWORTH
WYANDOTTE
POTTAWATOMIE
WABAUNSEE
SHAWNEE
DOUGLAS
JOHNSON
JACKSON
LA FAYETTE
SALINE
HOWARD
BOONE
CALLOWAY
MONTGOMERY
WARREN
ST CHARLES
ST LOUIS
SALINE
MORRIS
OSAGE
FRANKLIN
MIAMI
CASS
JOHNSON
PETTIS
COOPER
MONITEAU
COLE
OSAGE
GASCONADE
FRANKLIN
JEFFERSON
LYON
CHASE
MARION
COFFEY
ANDERSON
LINN
BATES
HENRY
BENTON
MORGAN
MILLER
MARIES
ST CLAIR
HICKORY
CAMDEN
PHELPS
CRAWFORD
WASHINGTON
ST GENEVIEVE
ST FRANCOIS
PERRY
HARVEY
GREENWOOD
WOODSON
ALLEN
BOURBON
VERNON
CEDAR
POLK
DALLAS
LACLEDE
PULASKI
DENT
IRON
MADISON
CAPE GIRARDEAU
BUTLER
SEDGWICK
WILSON
NEOSHO
CRAWFORD
BARTON
DADE
GREENE
WEBSTER
WRIGHT
TEXAS
REYNOLDS
SHANNON
WAYNE
BOLLINGER
SCOTT
ELK
SUMNER
COWLEY
CHAUTAUQUA
MONTGOMERY
LABETTE
CHEROKEE
JASPER
LAWRENCE
CHRISTIAN
DOUGLAS
HOWELL
OREGON
RIPLEY
CARTER
STODDARD
MISSISSIPPI
NEW MADRID
NEWTON
BARRY
STONE
TANEY
OZARK
McDONALD
BENTON
CARROLL
BOONE
MARION
BAXTER
FULTON
RANDOLPH
CLAY
GREENE
WASHINGTON
MADISON
NEWTON
SEARCY
STONE
IZARD
SHARP
LAWRENCE
CRAIGHEAD
INDEPENDENCE
JACKSON
POINSETT
MISSISSIPPI
CRAWFORD
FRANKLIN
JOHNSON
VAN BUREN
CLEBURNE
POPE
CONWAY
WHITE
CROSS
CRITTENDEN
SEBASTIAN
LOGAN
FAULKNER
WOODRUFF
ST FRANCIS
YELL
PERRY
PULASKI
PRAIRIE
MONROE
LEE
SCOTT
SALINE
LONOKE
PHILLIPS
MONTGOMERY
GARLAND
POLK
HOT SPRINGS
GRANT
JEFFERSON
ARKANSAS
PIKE
CLARK
LINCOLN
DESHA
SEVIER
HOWARD
DALLAS
DORSEY
LITTLE RIVER
HEMPSTEAD
NEVADA
OUACHITA
CALHOUN
BRADLEY
DREW
CHICOT
MILLER
LA FAYETTE
COLUMBIA
UNION
ASHLEY
KANSAS
ARKANSAS
Topeka
Lawrence
Emporia
Ottawa
Paola
Independence
Atchison
Leavenworth
Savannah
St Joseph
Boonville
Jefferson City
Sedalia
Springfield
Carthage
Nevada City
Fort Scott
Vinita
Okmulgee
Shawnee Town
Reams
Caddo
Little Rock
Helena
Napoleon
Texarkana
Charleston
St Louis
Osage River
Neosho River
Verdigris River
Illinois River
Boggy River
White River
Black River
Little Red River
Saline River
Washita River
Bayou Bartholomew
Cache River
St Francis River
41°
40°
39°
38°
37°
36°
35°
34°
33°
97°
96°
95°
94°
93°
92°
91°
90°
89°
Scale
100 MILES

It will be seen that in the 31 registration cities a very large majority of the deaths from croup occur during the months of October, November, December, January, February, March, and April. The distribution of the deaths from diphtheria throughout the year in the cities is more uniform. Nevertheless the months showing the greatest proportional number of deaths from this cause are the same as for croup.

FIG. 38.—DEATHS FROM DIPHTHERIA, BY MONTHS, IN 31 REGISTRATION CITIES.

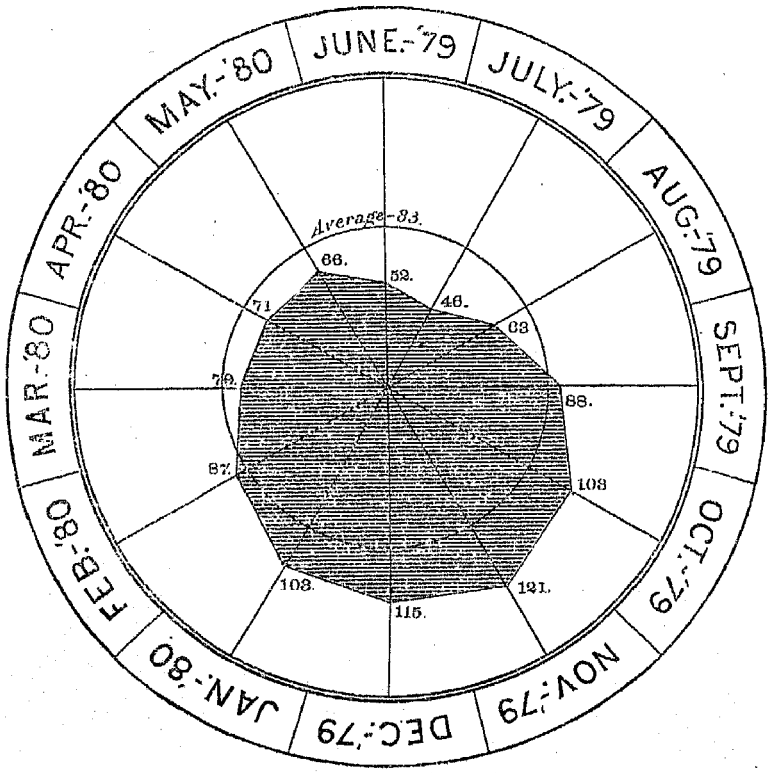
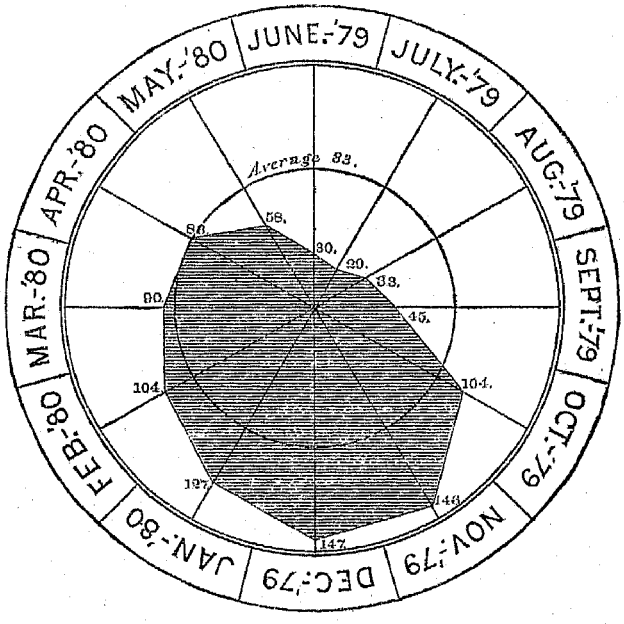


FIG. 39.—DEATHS FROM CROUP, BY MONTHS, IN 31 REGISTRATION CITIES.



DIARRHŒAL DISEASES.

Under the term "diarrhœal diseases" are included all deaths reported as due to diarrhœa, dysentery, cholera morbus, cholera infantum, and enteritis. The total number of deaths reported as due to these causes in the United States during the census year was 63,991, of which 34,136 were of males and 29,855 of females. They caused 8,454 deaths out of each 100,000 of all deaths reported. For the census year of 1870, the corresponding figures were 10,496, and for that of 1860, 7,720.

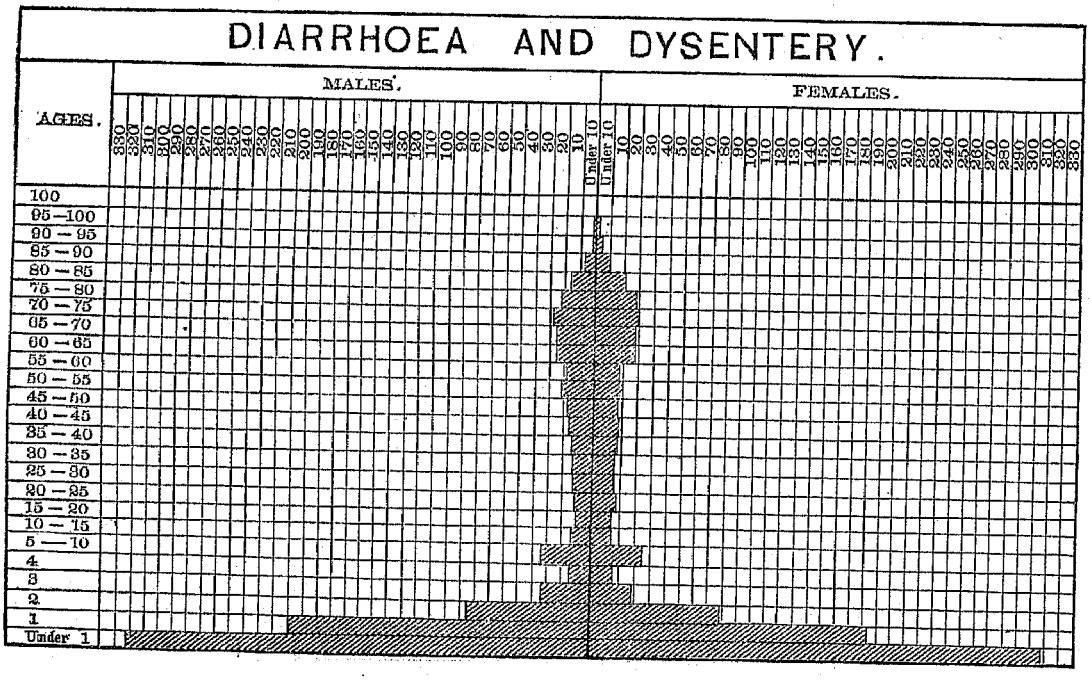
The mean age at death of those reported as dying of diarrhœal diseases during the census year was 12 years.

The following table and diagram show the relations to age of the deaths due to diarrhœa and dysentery:

TABLE 48.—SHOWING THE NUMBER OF DEATHS FROM DIARRHŒA AND DYSENTERY AT EACH GROUP OF AGES IN EACH 1000 DEATHS REPORTED AS CAUSED BY THESE DISEASES.

Ages.	Males.	Females.	Ages.	Males.	Females.	Ages.	Males.	Females.
Under 1 year	323.43	318.32	15–20 years	11.47	12.99	60–65 years	25.89	27.58
1 year	210.48	201.56	20–25 years	13.79	15.92	65–70 years	25.50	27.23
2 years	85.35	87.47	25–30 years	14.03	14.95	70–75 years	27.59	30.43
3 years	33.41	29.03	30–35 years	14.65	14.95	75–80 years	22.01	20.81
4 years	17.44	15.84	35–40 years	15.58	16.10	80–85 years	16.43	21.80
Total under 5 years	669.74	652.84	40–45 years	17.59	17.44	85–90 years	8.45	10.94
5–10 years	36.43	33.01	45–50 years	18.99	16.91	90–95 years	2.94	4.36
10–15 years	15.50	13.08	50–55 years	21.24	19.84	95 and over	2.32	2.40
			55–60 years	19.38	17.44	Unknown		

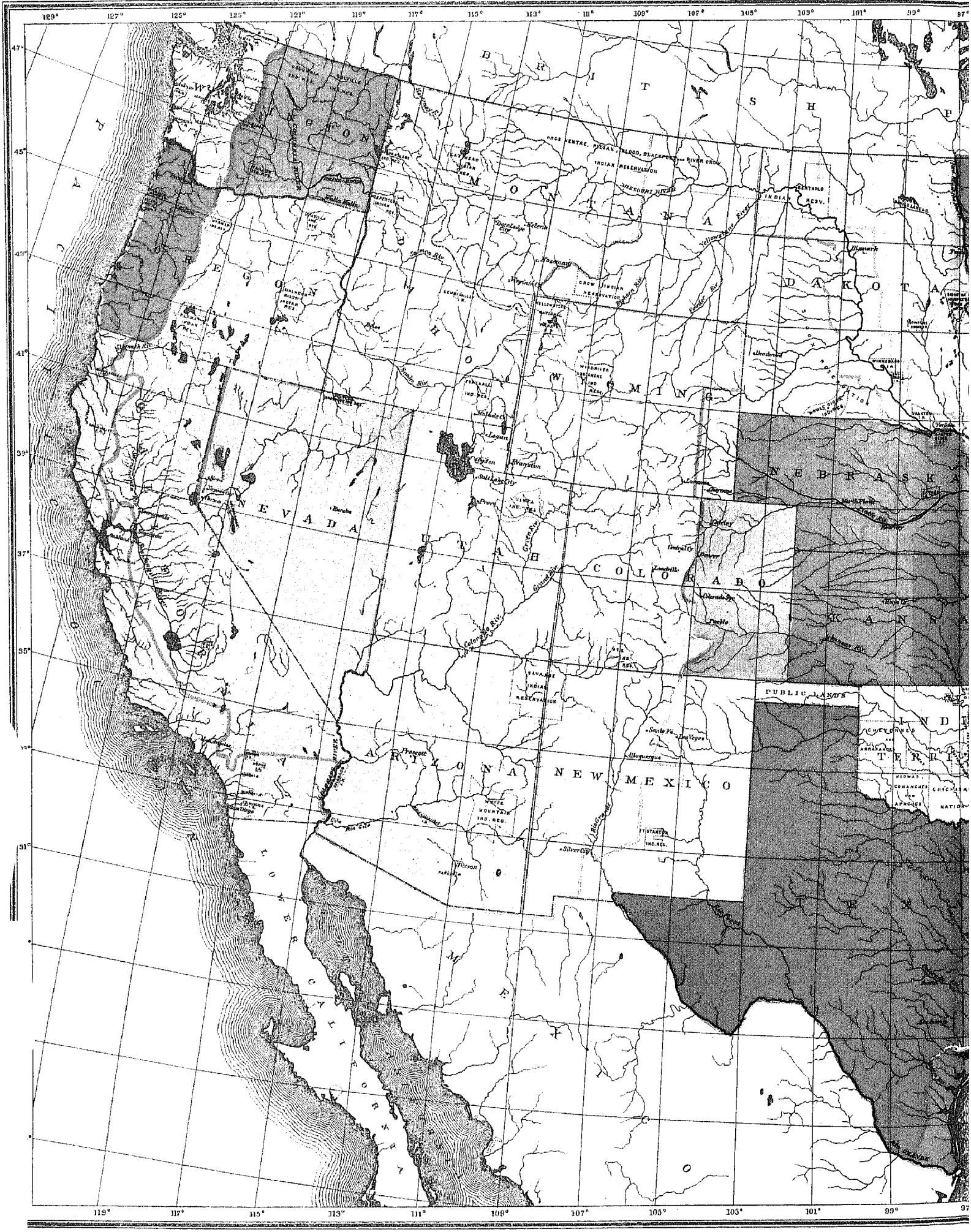
FIG. 40.—DEATHS FROM DIARRHŒA AND DYSENTERY AT CERTAIN GROUPS OF AGES IN 1000 DEATHS CAUSED BY THESE DISEASES.



Diarrhœal affections caused a greater proportion of deaths in the large cities (96.1) than in the rural districts (86.7). In those regions where the distinction of color and parentage was made they caused a greater proportion of deaths among the whites (99.2) than among the colored (71.2), and among the German (90.2) than among the Irish (68.0).

The geographical distribution of the diseases of this class is shown by Map No. 10. It will be seen that these affections are much more generally prevalent over the whole country than is the case with regard to the special diseases previously discussed. The regions showing the greatest proportions of deaths are the upper Mississippi valley, Texas, the southern part of Missouri and the eastern part of Kansas, the northern part of Georgia, the western part of South Carolina, and Maryland, while they are less prevalent in New England and the western territories. In studying this map it should be borne in mind that the majority of deaths from these causes occur in children under 5 years of age, and that these diseases are much more prevalent in cities than in the rural districts. The following table shows by grand groups the distribution of the deaths from this class of diseases:

DEPARTMENT OF THE INTERIOR



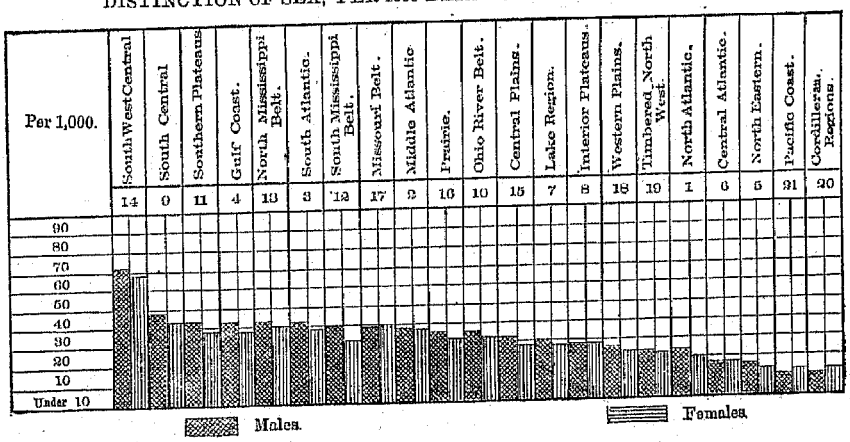
No. 10.

BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

TABLE 49.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM DIARRHŒA, DYSENTERY, CHOLERA INFANTUM, CHOLERA MORBUS, AND ENTERITIS, IN 1000 DEATHS FROM KNOWN CAUSES.

Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	90.20	83.10	96.60	95.80	99.2	71.2	68.0	90.2
1. North Atlantic Coast region	65.85	57.97	95.65	87.45	.....	.....	75.1	100.1
2. Middle Atlantic Coast region	108.19	101.70	103.39	100.89	103.3	97.4	77.3	109.8
3. South Atlantic Coast region	85.53	69.69	83.42	101.78	95.3	70.7	.....	.....
4. Gulf Coast region	82.27	79.26	104.80	94.00	96.3	76.6	.....	.....
5. Northeastern Hills and Plateaus	61.93	53.01	84.22	87.80	.....	.....	63.8	103.0
6. Central Appalachian region	71.42	66.96	103.96	107.66	.....	.....	51.6	65.5
7. Region of the Great Northern Lakes	76.79	68.02	103.17	101.94	.....	.....	46.9	78.6
8. The Interior Plateau	78.14	73.99	85.08	84.16	79.7	73.0	56.7	59.5
9. Southern Central Appalachian region	97.65	85.45	.....	.....	102.8	53.8	.....	.....
10. The Ohio River Belt	101.11	91.84	98.74	101.84	100.1	70.2	66.5	88.8
11. Southern Interior Plateau	92.20	79.03	.....	.....	110.0	67.1	.....	.....
12. South Mississippi River Belt	81.86	67.56	.....	.....	91.8	62.5	.....	.....
13. North Mississippi River Belt	105.97	103.46	113.96	110.58	.....	.....	71.4	101.9
14. Southwest Central region	120.56	127.05	.....	.....	139.6	81.6	.....	.....
15. Central region, plains and prairies	88.74	78.91	85.87	88.38	88.4	53.7	.....	.....
16. The Prairie region	108.51	95.13	.....	.....	.....	.....	73.6	82.6
17. Missouri River Belt	94.90	97.42	124.29	102.94	.....	.....	61.3	109.1
18. Region of the Western Plains	88.41	66.55	72.91	116.02	.....	.....	51.9	84.5
19. Heavily-timbered region of the Northwest	82.20	63.25	.....	.....	.....	.....	55.2	84.4
20. Cordilleran region	42.48	54.48	.....	.....	.....	.....	34.9	28.2
21. Pacific Coast region	65.94	74.70	39.20	54.66	.....	.....	44.6	43.6

FIG. 41.—DEATHS FROM DIARRHŒA AND DYSENTERY IN 21 GRAND GROUPS, WITH DISTINCTION OF SEX, PER 1000 DEATHS FROM KNOWN CAUSES.



The following diagrams show the relations of deaths reported as due to diarrhœa and dysentery, cholera morbus, cholera infantum, dentition, convulsions, and meningitis in 31 registration cities in relation to the month of death. It will be seen that in all of them the greatest proportion of deaths occur during the summer months, the maximum in each case being reached during the month of July. The greater proportion of the deaths from all these causes occurs in children and infants, and it is probable that in many cases they are only different names for what is essentially the same cause of death:

FIG. 42.—DEATHS FROM DIARRHŒA AND DYSENTERY, BY MONTHS, IN 31 REGISTRATION CITIES.

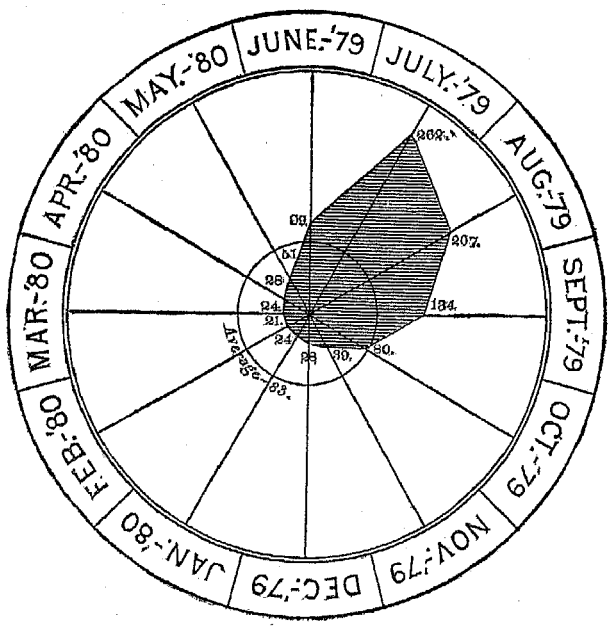


FIG. 43.—DEATHS FROM CHOLERA MORBUS, BY MONTHS, IN 31 REGISTRATION CITIES.

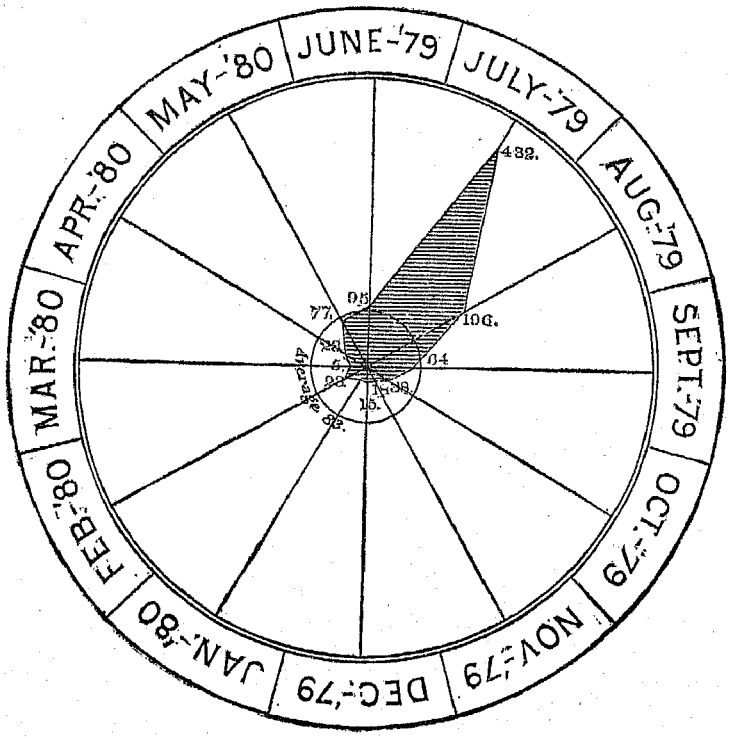


FIG. 44.—DEATHS FROM CHOLERA INFANTUM, BY MONTHS, IN 31 REGISTRATION CITIES.

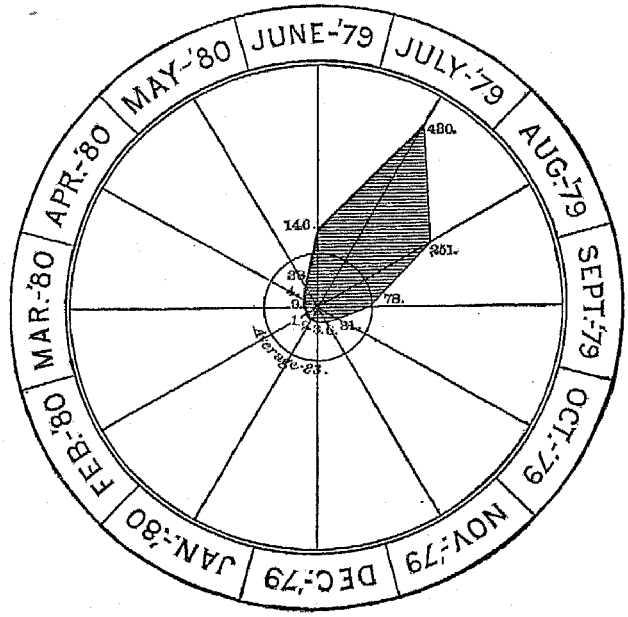


FIG. 45.—DEATHS FROM CONVULSIONS, BY MONTHS, IN 31 REGISTRATION CITIES.

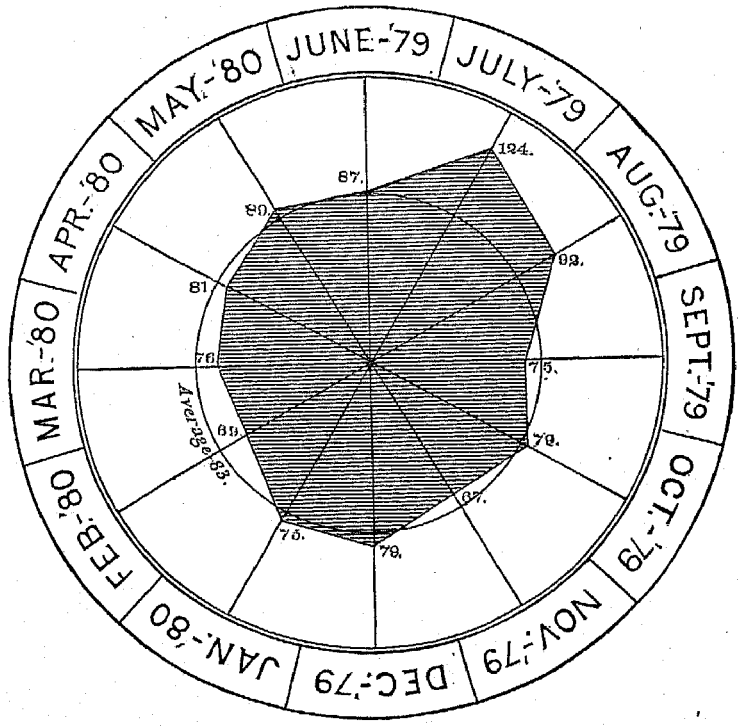


FIG. 46.—DEATHS FROM DENTITION, BY MONTHS, IN 31 REGISTRATION CITIES.

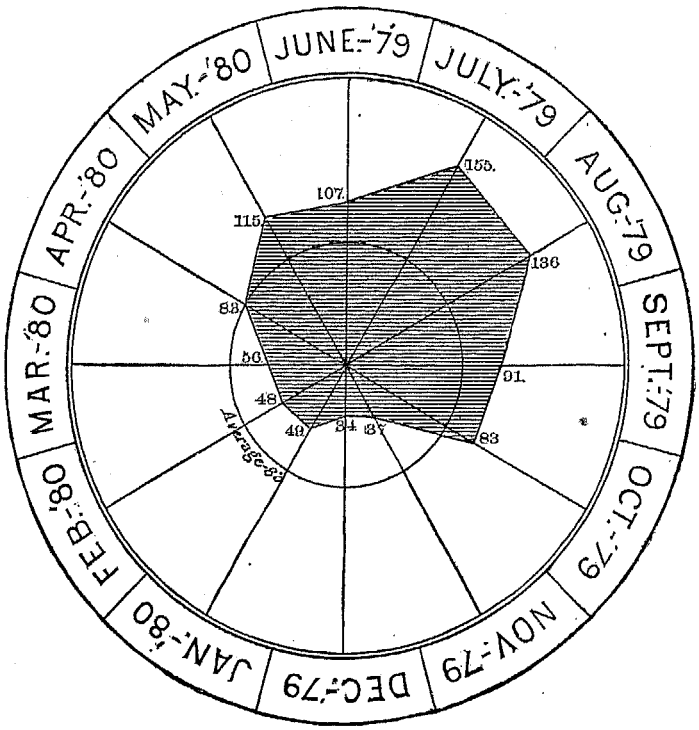
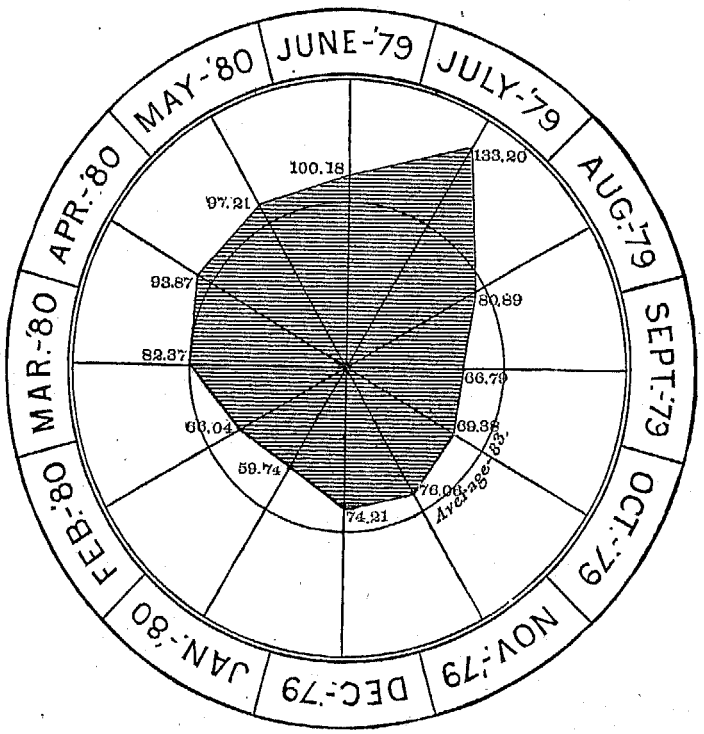
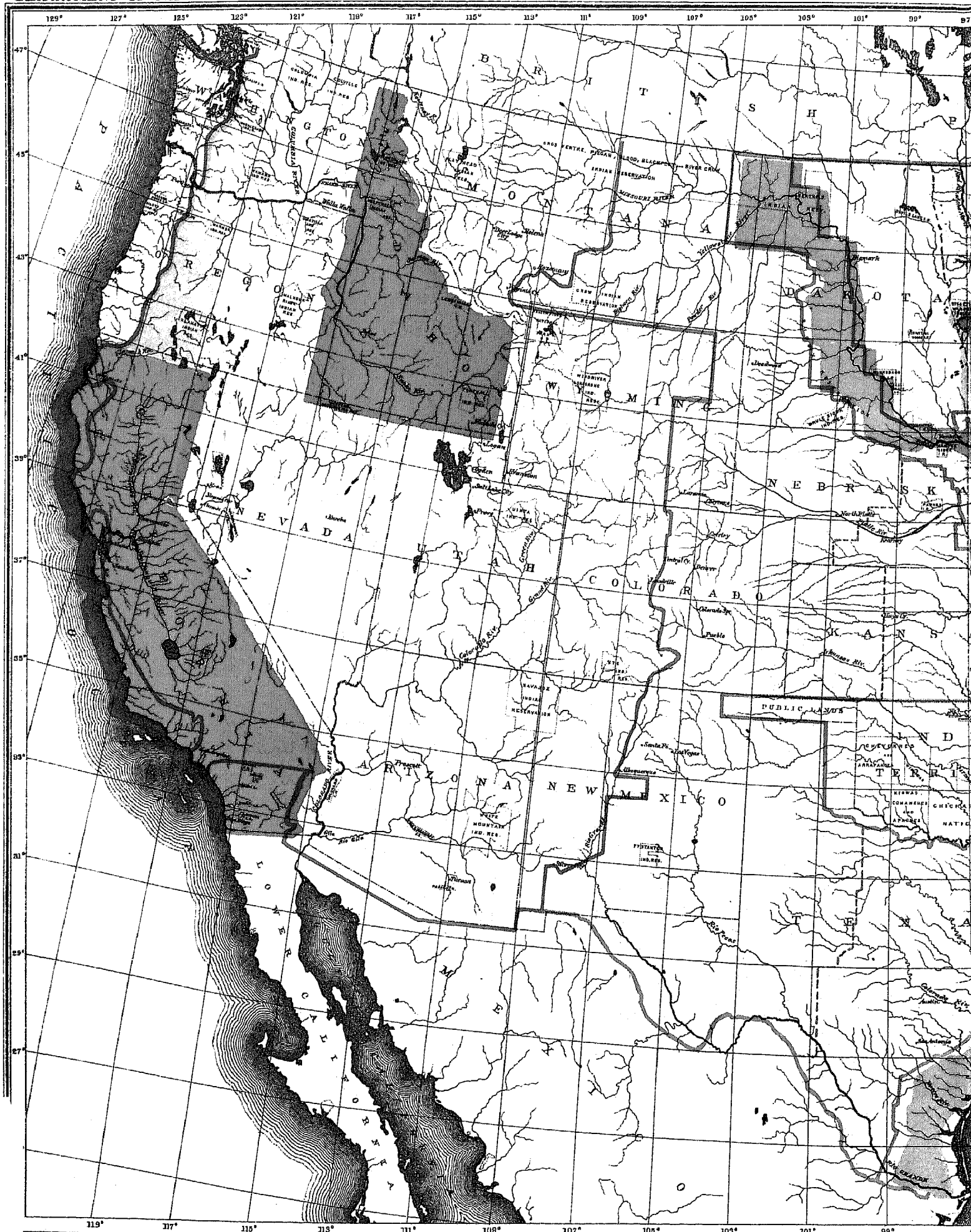


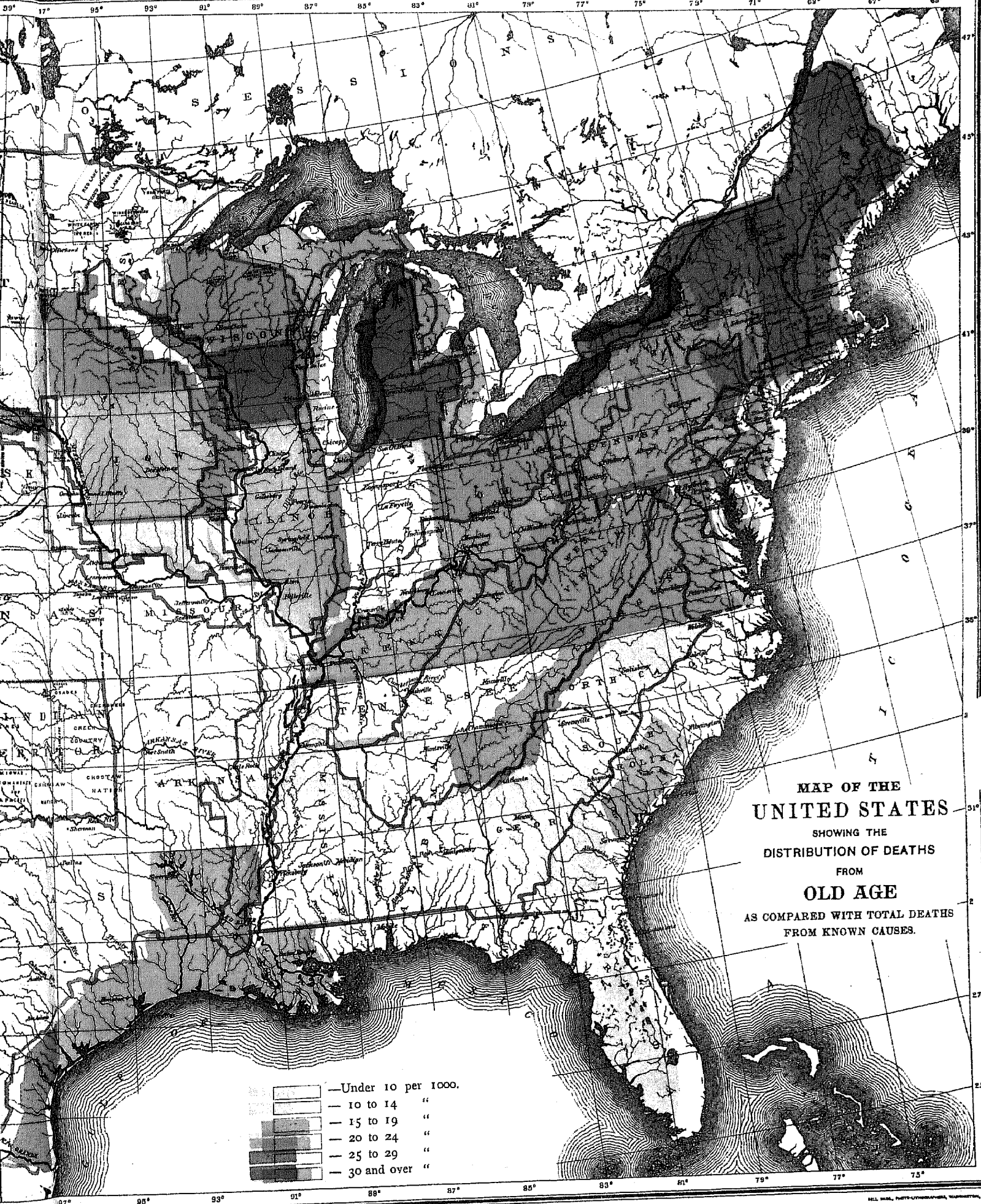
FIG. 47.—DEATHS FROM MENINGITIS, BY MONTHS, IN 31 REGISTRATION CITIES.



DEPARTMENT OF THE INTERIOR

Sheet N




MAP OF THE
UNITED STATES
SHOWING THE
DISTRIBUTION OF DEATHS
FROM
OLD AGE
AS COMPARED WITH TOTAL DEATHS
FROM KNOWN CAUSES.
—Under 10 per 1000.
— 10 to 14 "
— 15 to 19 "
— 20 to 24 "
— 25 to 29 "
— 30 and over "

OLD AGE.

The total number of deaths reported as due to old age in the Census of 1880 was 14,168, of which 6,102 were males and 8,066 were females. It caused 1,872 out of each 100,000 deaths from all causes reported, as against 1,621 in 1870, 2,762 in 1860, and 2,795 in 1850.

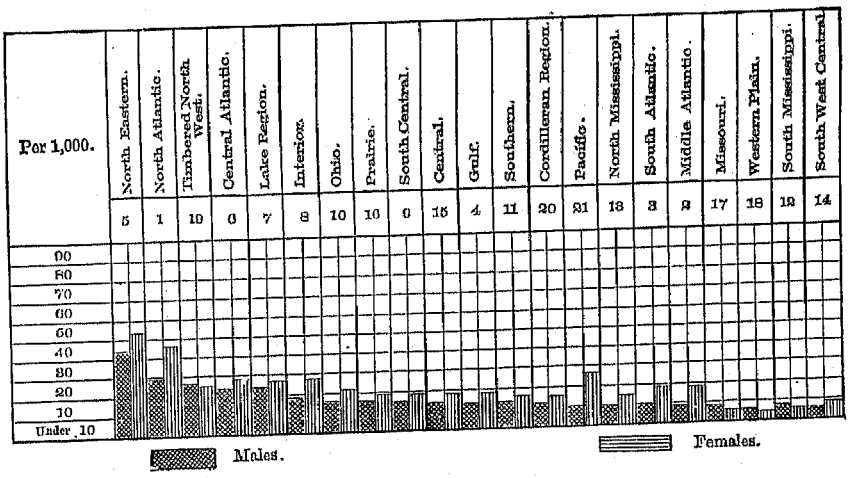
The following table and diagram, in connection with Map No. 16, show the geographical distribution of deaths from this cause. From this it will be seen that the greatest proportional number of deaths from this cause occurred in the northern and eastern states.

The geographical distribution of deaths from old age is, of course, mainly dependent upon the proportion of persons of advanced years living in each region, which will be given hereafter.

TABLE 50.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, THE PROPORTION OF DEATHS FROM OLD AGE IN 1000 DEATHS FROM KNOWN CAUSES.

Grand Groups.	TOTAL.		RURAL.		CITIES.	
	M.	F.	M.	F.	M.	F.
Total	16.3	23.2	.....	.....	.....	.....
1. North Atlantic Coast region	29.7	47.8	35.7	53.1	19.0	38.1
2. Middle Atlantic Coast region	9.5	18.7	18.5	31.8	5.8	13.1
3. South Atlantic Coast region	10.2	18.7	9.8	15.3	13.1	35.7
4. Gulf Coast region	13.3	18.8	14.1	17.8	11.9	20.8
5. Northeastern Hills and Plateaus	43.6	54.4	46.1	55.5	12.7	38.9
6. Central Appalachian region	23.3	28.8	23.5	28.2	18.5	41.7
7. Region of the Great Northern Lakes	22.0	26.9	30.9	32.0	13.2	21.7
8. The Interior Plateau	18.9	27.0	21.4	28.5	13.5	23.7
9. Southern Central Appalachian region	15.4	19.8	.....	.....	.....	.....
10. The Ohio River Belt	16.9	22.8	6.3	22.3	18.4	24.2
11. Southern Interior Plateau	12.7	16.2	.....	.....	.....	.....
12. South Mississippi River Belt	7.0	16.1	.....	.....	.....	.....
13. North Mississippi River Belt	10.7	15.8	13.9	19.9	2.5	4.5
14. Southwest Central region	6.3	9.5	.....	.....	.....	.....
15. Central region, plains and prairies	14.3	19.2	13.7	18.4	26.7	35.6
16. The Prairie region	16.0	19.3	.....	.....	.....	.....
17. Missouri River Belt	6.2	7.5	6.6	7.5	2.3	7.3
18. Region of the Western Plains	7.0	5.6	7.0	6.3	6.9	.....
19. Heavily-timbered region of the Northwest	27.6	25.0	.....	.....	.....	.....
20. Cordilleran region	11.4	15.3	.....	.....	.....	.....
21. Pacific Coast region	10.9	26.9	15.2	18.7	7.2	24.1

FIG. 48.—DEATHS FROM OLD AGE IN 21 GRAND GROUPS, WITH DISTINCTION OF SEX, PER 1000 DEATHS FROM KNOWN CAUSES.



HOOPING-COUGH.

The total number of deaths reported as due to hooping-cough during the census year is 11,064, being 14.6 per 1000 deaths from all causes. This proportion is smaller than for the Census of 1870, when it was 18.3, or for the Census of 1860, when it was 21.3. The proportion of deaths from this cause in each 1000 deaths of which the causes were specified was, for males, 13.78, and for females, 17.07. In England and Wales, for the 10 years 1870–'79, the proportion of deaths from this cause was 23.8, and for the year 1880 it was 25.9.

The mean age at death of those reported as dying from hooping-cough during the census year was 2 years.

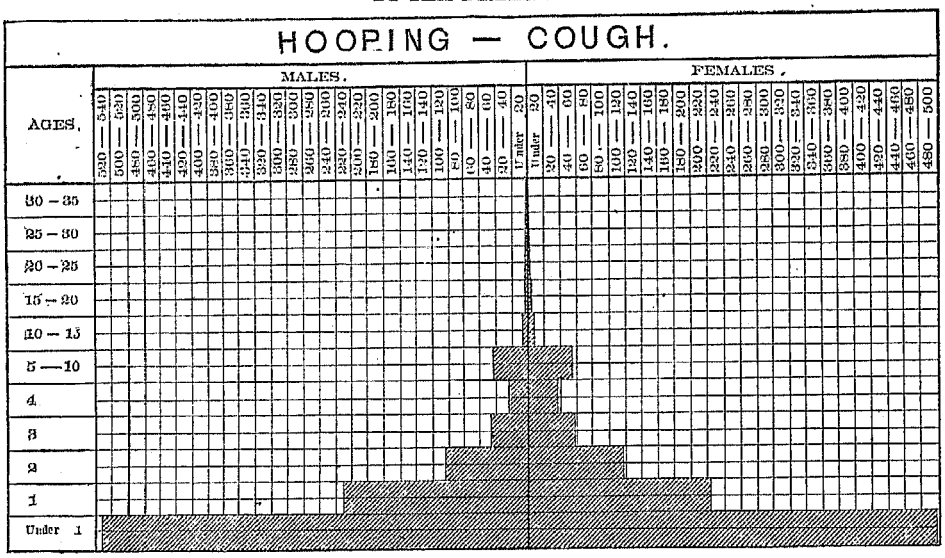
The proportion of deaths from hooping-cough occurring under 1 year of age is, for males, 530.7, for females, 498.5 per 1000; under 5 years of age, for males, 937.4, for females, 930.9. The general rule holds good that this disease is more fatal in females than in males, although the disproportion is not so great as in the Census of 1870, in which the deaths were 3,987 males and 5,021 females. It caused a greater proportion of deaths in the rural districts (16.9) than in the large cities (9.7); and in those regions where distinction of color was made, a much greater proportion among the colored (33.0) than among the whites (14.3); among the deaths in those of German parentage the proportion was 8.4, and in those of Irish parentage 6.0 in each 1000 deaths from known causes.

The following table and diagram show the relations to age of the deaths due to hooping-cough:

TABLE 51.—SHOWING THE NUMBER OF DEATHS FROM HOOPING-COUGH AT EACH GROUP OF AGES IN EACH 1000 DEATHS REPORTED AS CAUSED BY THIS DISEASE.

Ages.	Males.	Females.	Ages.	Males.	Females.	Ages.	Males.	Females.
Under 1 year	530.57	498.56	15–20 years	1.76	2.70	60–65 years	0.20	0.84
1 year	230.51	224.36	20–25 years	1.17	1.35	65–70 years	0.20	0.34
2 years	102.36	118.43	25–30 years	1.17	1.18	70–75 years	0.20	0.17
3 years	47.27	57.10	30–35 years	0.39	0.34	75–80 years		0.17
4 years	26.76	32.44	35–40 years		0.17	80–85 years	0.20	0.17
Total under 5 years	937.49	930.90	40–45 years	0.59	0.17	85–90 years	0.20	
5–10 years	47.27	53.39	45–50 years		0.17	90–95 years		
10–15 years	8.79	7.60	50–55 years	0.20	0.34	95 and over		
			55–60 years	0.20		Unknown	2.73	2.03

FIG. 49.—DEATHS FROM HOOPING-COUGH AT CERTAIN GROUPS OF AGES IN 1000 DEATHS CAUSED BY THIS DISEASE.

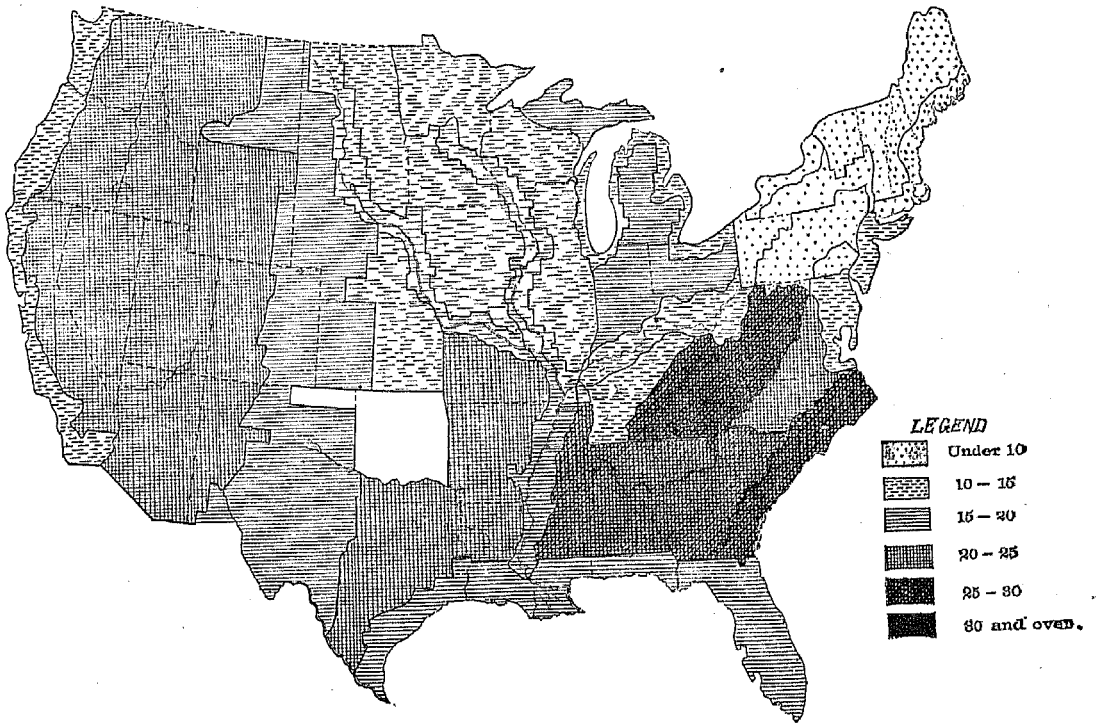


The following table and cartogram show the distribution of deaths from hooping-cough by grand groups. It will be seen that it was most prevalent in the Appalachian region and on the southern Atlantic coast, the smallest number of deaths being in New England:

TABLE 52.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM HOOPING-COUGH IN EACH 1000 DEATHS FROM KNOWN CAUSES.

Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	15.40	18.60	8.20	11.40	14.3	33.0	6.0	8.4
1. North Atlantic Coast region	5.90	7.44	9.19	13.95			8.6	15.4
2. Middle Atlantic Coast region	12.72	16.98	8.09	11.38	9.4	23.2	6.6	5.6
3. South Atlantic Coast region	41.01	38.10	13.11	15.66	20.5	48.8		
4. Gulf Coast region	19.95	20.84	8.71	14.00	14.5	22.1		
5. Northeastern Hills and Plateaus	5.23	7.75	2.13	7.30			5.5	
6. Central Appalachian region	6.43	8.25	2.47	2.69			4.0	3.5
7. Region of the Great Northern Lakes	13.23	15.13	5.28	6.46			3.7	5.8
8. The Interior Plateau	11.85	14.31	8.48	10.49	8.5	30.8	2.9	4.7
9. Southern Central Appalachian region	32.21	37.48			31.7	46.5		
10. The Ohio River Belt	11.35	11.27	16.99	20.97	12.3	22.1	6.7	12.5
11. Southern Interior Plateau	28.04	28.32			16.9	37.1		
12. South Mississippi River Belt	17.27	21.02			10.8	25.4		
13. North Mississippi River Belt	8.87	13.19	6.36	13.36			4.2	13.7
14. Southwest Central region	21.14	26.06			21.2	32.7		
15. Central region, plains and prairies	16.07	20.76	10.18	8.55	16.5	27.3		
16. The Prairie region	11.18	14.81					3.5	10.8
17. Missouri River Belt	10.79	13.03	16.95	14.71			7.6	11.4
18. Region of the Western Plains	15.47	25.46	17.36	22.10				
19. Heavily-timbered region of the Northwest	14.88	12.80					7.6	16.0
20. Cordilleran region	18.12	24.91					6.3	3.5
21. Pacific Coast region	12.96	30.97	4.62	10.72			7.1	6.2

FIG. 50.—DEATHS FROM HOOPING-COUGH PER 1000 DEATHS FROM KNOWN CAUSES. IN 6 SHADES.

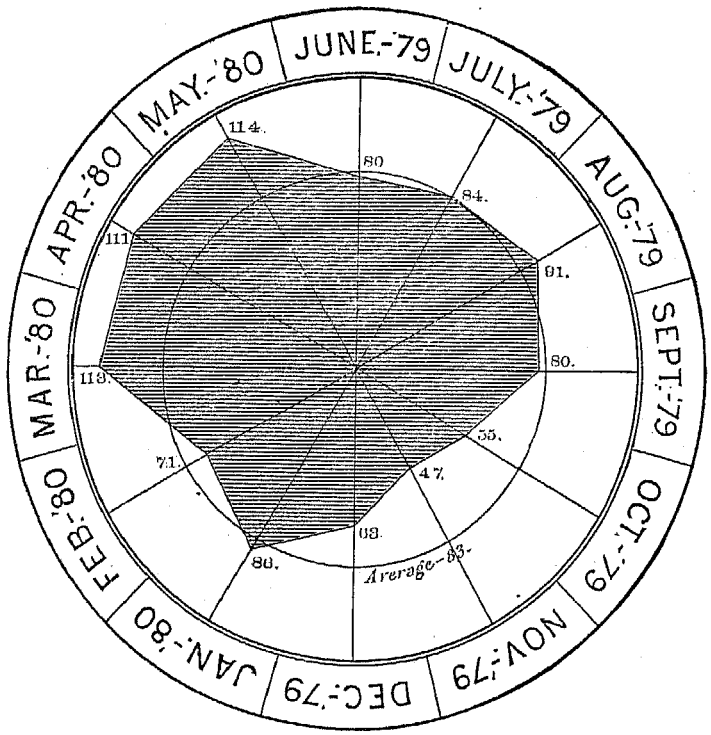


The following table and diagram show for the 31 registration cities the proportion of deaths from hooping-cough occurring in each month. It will be seen that it was most fatal in the months of March, April, and May, and least so from September to December:

TABLE 53.—SHOWING DEATHS FROM HOOPING-COUGH FOR 31 REGISTRATION CITIES, WITH DISTINCTION OF MONTH, AND THE PROPORTION PER 1000 OF ALL DEATHS FOR EACH MONTH.

Months.	DEATHS FROM HOOPING-COUGH.			PER 1000 DEATHS FROM HOOPING-COUGH.		
	Total.	Male.	Female.	Total.	Male.	Female.
Total	1,432	629	803	.....	.....	.....
June, 1879	115	47	68	80.30	74.72	84.68
July, 1879	121	47	74	84.50	74.72	92.15
August, 1879	131	64	67	91.41	101.75	83.44
September, 1879	115	50	65	80.30	79.49	80.95
October, 1879	79	29	50	55.17	46.10	62.27
November, 1879	68	29	39	47.49	46.10	48.57
December, 1879	91	28	63	63.55	44.51	78.46
January, 1880	124	56	68	86.59	89.03	84.68
February, 1880	103	47	56	71.93	74.72	69.74
March, 1880	162	84	78	113.13	133.54	97.13
April, 1880	159	67	92	111.03	106.52	114.57
May, 1880	164	81	83	114.52	128.77	103.36

FIG. 51.—DEATHS FROM HOOPING-COUGH, BY MONTHS, IN 31 REGISTRATION CITIES.



MEASLES.

The total number of deaths reported as due to measles during the census year was 8,072, of which 3,980 were of males, and 4,092 of females. In each 100,000 deaths from all causes it caused 1,066 deaths in 1880, 1,876 in 1870, 989 in 1860, and 923 in 1850. In England and Wales, for the 10 years 1870–'79, in each 100,000 deaths from specified causes, it caused 1,700 deaths, and in the year 1880, 2,338 deaths. In each 1,000 deaths from specified causes in the United States during the census year it caused for males 10.69, and for females 11.78. The proportion of deaths per 1,000 of deaths from known causes reported as due to this disease was greater in the rural districts (12.3) than in the cities (7.4), and in those regions where distinctions of white and colored and Irish and German parentage were made the proportions were much greater in the colored (17.7) than in the white (9.1), and greater in the German (8.5) than in the Irish (5.3). The proportionate mortality from this cause was greatest in the Missouri River valley and in the regions of the Western Plains.

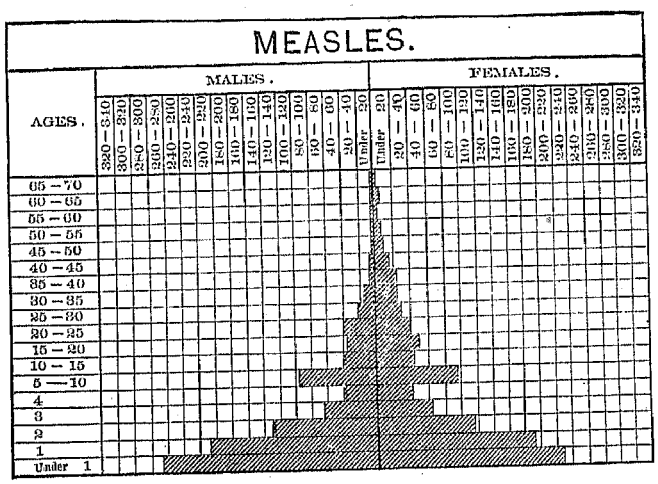
The mean age at death of those reported as dying of measles during the census year was 7 years.

The following table and diagram show the relations to age of the deaths from this cause:

TABLE 54.—SHOWING THE NUMBER OF DEATHS FROM MEASLES AT EACH GROUP OF AGES IN EACH 1000 DEATHS REPORTED AS CAUSED BY THIS DISEASE.

Ages.	Males.	Females.	Ages.	Males.	Females.	Ages.	Males.	Females.
Under 1 year	267.44	230.64	15–20 years	38.28	50.98	60–65 years	2.77	5.15
1 year	208.26	193.63	20–25 years	41.30	40.69	65–70 years	2.27	1.72
2 years	125.91	117.40	25–30 years	22.66	28.43	70–75 years	1.26	1.23
3 years	68.75	63.73	30–35 years	12.84	24.26	75–80 years	1.26	0.74
4 years	41.80	41.01	35–40 years	7.81	24.02	80–85 years	0.25	0.25
Total under 5 years	712.16	647.30	40–45 years	7.05	13.24	85–90 years	0.25	0.25
5–10 years	96.20	98.28	45–50 years	4.03	8.09	90–95 years	0.25	.....
10–15 years	41.80	43.38	50–55 years	4.03	7.11	95 and over	.....	0.25
			55–60 years	3.02	4.66	Unknown	2.27	2.94

FIG. 52.—DEATHS FROM MEASLES AT CERTAIN GROUPS OF AGE IN 1000 DEATHS CAUSED BY THIS DISEASE.

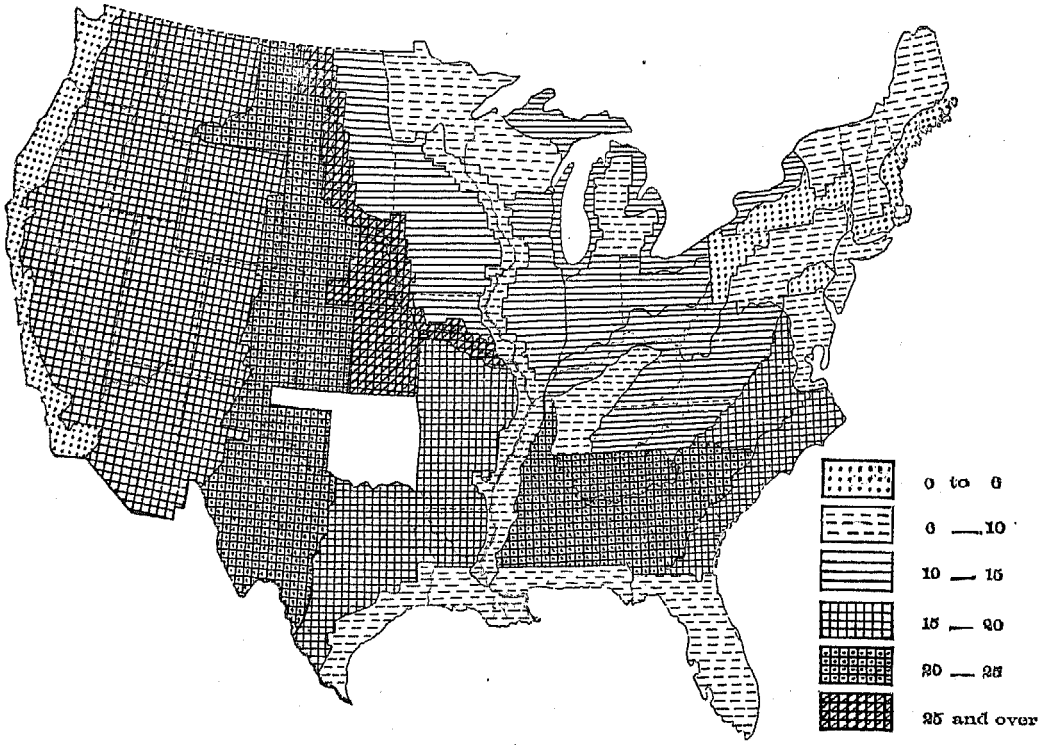


The following table and cartogram indicate, by grand groups, the geographical distribution of the deaths reported as due to measles. It will be seen that the area of its greatest prevalence was in the Missouri River Belt, the Prairie region, and the Southern Interior Plateau:

TABLE 55.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM MEASLES IN 1000 DEATHS FROM KNOWN CAUSES.

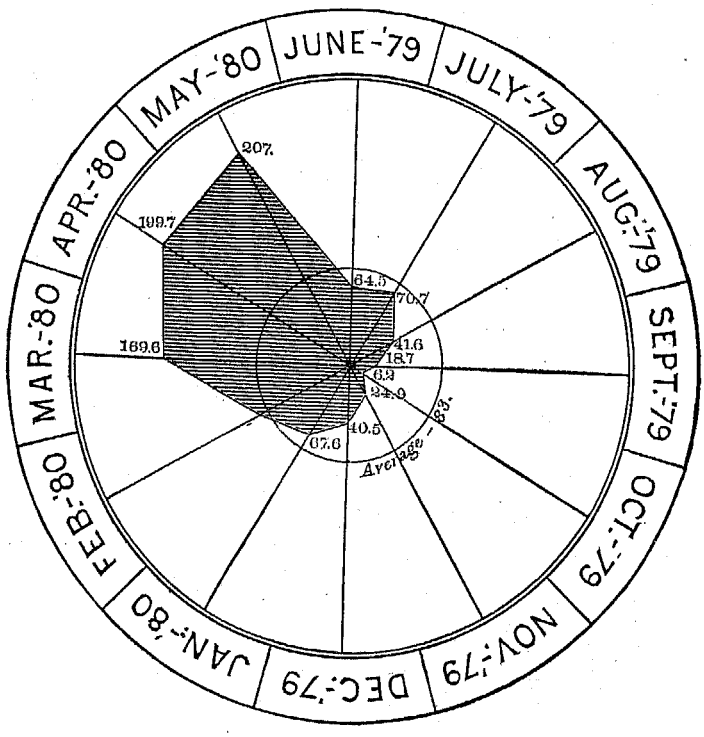
Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	11.80	12.80	6.00	8.00	9.1	17.7	5.3	8.5
1. North Atlantic Coast region	3.72	2.41	2.94	2.49	.....	.....	2.4	1.5
2. Middle Atlantic Coast region	7.12	7.07	6.03	6.30	6.3	8.3	6.0	5.3
3. South Atlantic Coast region	22.88	19.39	1.19	3.36	14.0	22.6	.....	.....
4. Gulf Coast region	4.99	5.86	6.45	18.40	7.1	9.4	.....	.....
5. Northeastern Hills and Plateaus	5.23	8.27	2.13	3.65	.....	.....	5.9	.....
6. Central Appalachian region	4.85	7.05	9.90	4.04	.....	.....	8.4	2.8
7. Region of the Great Northern Lakes	10.28	13.25	11.71	15.44	.....	.....	6.8	10.3
8. The Interior Plateau	8.01	8.73	7.09	7.46	6.5	18.3	4.1	4.5
9. Southern Central Appalachian region	11.48	13.04	.....	.....	9.4	21.5	.....	.....
10. The Ohio River Belt	9.76	12.56	8.07	8.49	9.9	15.4	6.7	12.8
11. Southern Interior Plateau	21.29	18.78	.....	.....	11.0	26.7	.....	.....
12. South Mississippi River Belt	8.12	3.88	.....	.....	4.4	7.5	.....	.....
13. North Mississippi River Belt	10.91	10.39	7.72	7.67	.....	.....	4.2	11.1
14. Southwest Central region	15.31	17.39	.....	.....	16.7	14.4	.....	.....
15. Central region, plains and prairies	10.55	11.60	7.00	12.12	11.0	10.4	.....	.....
16. The Prairie region	17.41	19.00	.....	.....	.....	.....	7.7	11.8
17. Missouri River Belt	23.77	28.06	28.25	47.79	.....	.....	5.1	9.6
18. Region of the Western Plains	25.64	27.78	17.36	22.10	.....	.....	.....	14.0
19. Heavily-timbered region of the Northwest	8.44	6.25	.....	.....	.....	.....	.....	9.0
20. Cordilleran region	13.48	24.21	.....	.....	.....	.....	7.9	.....
21. Pacific Coast region	4.19	4.67	3.63	5.36	.....	.....	4.8	4.6

FIG. 53.—DEATHS FROM MEASLES PER 1000 DEATHS FROM KNOWN CAUSES. IN 6 SHADES.



The following diagram shows the distribution of the deaths from measles reported in 31 registration cities with reference to the month of death. It will be seen that by far the greater number of deaths from this cause occurred in the months of February, March, April, and May, 1880, indicating an epidemic prevalence at that period:

FIG. 54.—DEATHS FROM MEASLES, BY MONTHS, IN 31 REGISTRATION CITIES.



MUMPS.

The number of deaths reported as due to mumps was 115, of which 49 were of white males, 38 of white females, 14 of colored males, and 14 of colored females. The proportion of mortality from this cause was therefore much greater among the colored than among the whites. Over half the deaths occurred in children under 5 years of age. Mumps is a disease which is rarely fatal, and the number of deaths above reported indicates the occurrence of over 100,000 cases of this affection during the year.

ERYSIPELAS.

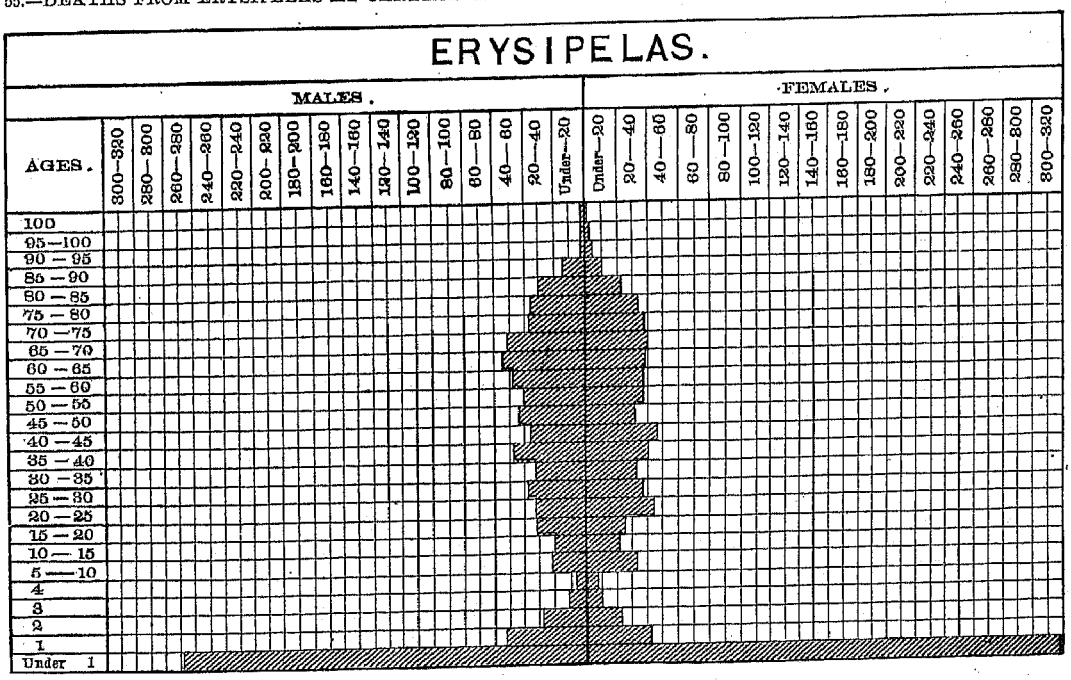
The number of deaths reported as due to erysipelas was 4,275 (2,261 males, 2,014 females), being 565 in every 100,000 deaths from all causes, as against 642 in 1870, 697 in 1860, and 863 in 1850. In each 1000 deaths from specified causes it caused in males 6.07, and in females 5.80 deaths.

The following table and diagram show the proportion of deaths reported as due to this cause in relation to age, with distinction of sex:

TABLE 56.—SHOWING THE NUMBER OF DEATHS FROM ERYSIPELAS AT EACH GROUP OF AGES IN EACH 1000 DEATHS REPORTED AS CAUSED BY THIS DISEASE.

Ages.	Males.	Females.	Ages.	Males.	Females.	Ages.	Males.	Females.
Under 1 year	268.17	316.24	15–20 years	31.91	27.39	60–65 years	55.85	38.84
1 year	53.19	43.33	20–25 years	33.69	44.82	65–70 years	50.98	40.84
2 years	29.26	23.41	25–30 years	38.12	36.85	70–75 years	36.35	38.35
3 years	12.85	12.45	30–35 years	34.13	33.37	75–80 years	35.46	33.86
4 years	7.54	8.06	35–40 years	48.32	41.83	80–85 years	30.14	23.41
Total under 5 years	371.01	404.38	40–45 years	35.00	47.31	85–90 years	13.30	12.05
5–10 years	24.82	34.86	45–50 years	43.44	32.87	90–95 years	2.22	6.97
10–15 years	20.83	22.41	50–55 years	42.55	37.35	95 and over	2.22	3.98
			55–60 years	48.76	37.35	Unknown	2.22	2.99

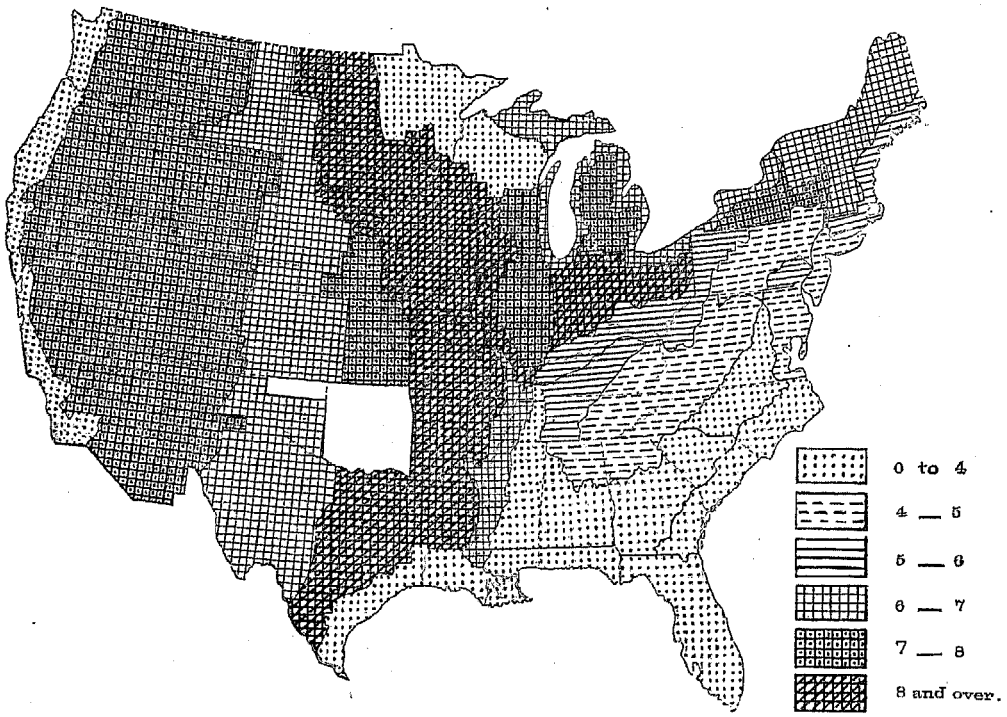
FIG. 55.—DEATHS FROM ERYSIPELAS AT CERTAIN GROUPS OF AGES IN 1000 DEATHS CAUSED BY THIS DISEASE.



It will be seen that the greatest proportion of deaths occur under 2 years of age; that the frequency of death then diminishes to the age of 5, after which it gradually, though somewhat irregularly, increases to the age of 70, and then again diminishes throughout the period of old age. The mortality of females from this disease is somewhat greater than that of males in the lower ages up to the end of the child-bearing period, that is, up to 45 years of age, after which it is less.

The following cartogram indicates by grand groups the geographical distribution of the deaths reported as due to erysipelas. The proportion is low in the South, in the Northwest, and on the Pacific coast, and high in the Prairie region:

FIG. 56.—DEATHS FROM ERYSIPELAS PER 1000 DEATHS FROM KNOWN CAUSES. IN 6 SHADES.



CONSUMPTION.

The total number of deaths reported as due to consumption during the census year was 91,270, being the greatest number reported as due to any single cause of death. Of this number, 40,512 were of males and 50,758 were of females. It is reported as causing 12,059 in every 100,000 deaths from all causes, as against 14,199 in 1870, 12,453 in 1860, and 10,376 in 1850. In England and Wales, for the 10 years 1870–'79, it caused in each 100,000 deaths from specified causes 10,159 deaths, and in the year 1880, 9,141 deaths.

The term "consumption", as used in the enumerators' returns, is no doubt a vague one, and includes many cases which are not due to true tubercular phthisis, especially in infants; yet it is probable that a very large majority of the cases thus reported are rightfully named, and that some conclusions may be drawn from the figures as to the relative prevalence of tubercular lung disease which will be reliable to a great extent. The census figures indicate that it is more frequent in females. In the 50 large cities, out of each 1000 deaths from known causes, it caused 131.9 in males and 144.3 in females; and in the rural districts it caused 101.9 deaths in males and 146.6 in females. In England, for the year 1880, the deaths from this cause in males were 84.6, and in females, 91.8 per 1000 of all specified causes of death.

A greater mortality from this disease in the female might be expected, because women are, as a rule, more confined to the house and more exposed to air contaminated by the products of respiration, and also because they are more exposed to contagion in nursing cases of the disease, the present prevailing theory being that tubercular phthisis is due to a peculiar micro-organism, the *bacillus tuberculosis*, acting in conjunction with a peculiar constitution or condition of the body, of which we know little, except that it may be either hereditary or induced or promoted by breathing foul air.

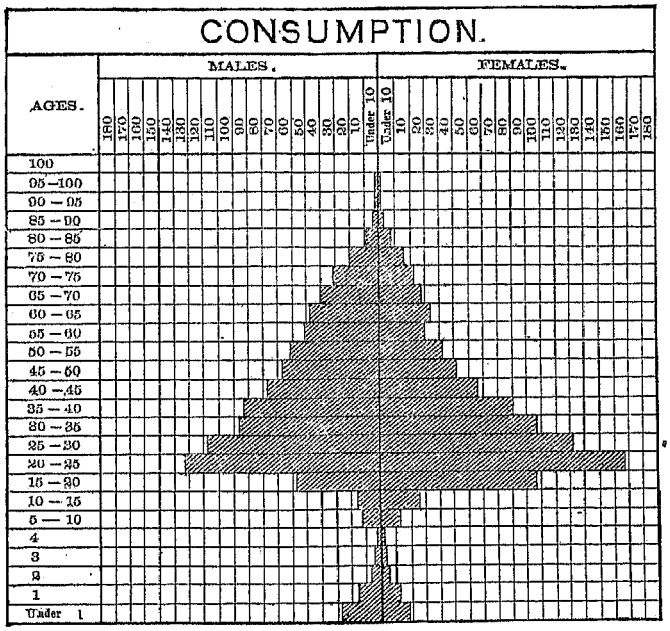
The mean age at death of those reported as dying from consumption during the census year was 37 years.

The following table and diagram show the proportion of deaths reported as due to this cause at various ages:

TABLE 57.—SHOWING THE NUMBER OF DEATHS FROM CONSUMPTION AT EACH GROUP OF AGES IN EACH 1000 DEATHS REPORTED AS CAUSED BY THIS DISEASE.

Ages.	Males.	Females.	Ages.	Males.	Females.	Ages.	Males.	Females.
Under 1 year	20.86	19.28	15–20 years	59.74	107.03	60–65 years	49.08	32.26
1 year	14.76	11.23	20–25 years	131.73	167.92	65–70 years	40.40	27.67
2 years	8.73	6.96	25–30 years	118.74	142.15	70–75 years	31.54	22.31
3 years	4.69	4.11	30–35 years	97.01	107.21	75–80 years	20.81	16.04
4 years	2.98	2.87	35–40 years	93.47	90.18	80–85 years	9.05	8.03
Total under 5 years	61.00	44.46	40–45 years	76.26	67.85	85–90 years	3.08	2.79
5–10 years	11.08	12.66	45–50 years	68.72	51.87	90–95 years	0.87	0.87
10–15 years	14.46	26.18	50–55 years	61.53	41.91	95 and over	0.30	0.34
			55–60 years	51.16	30.28	Unknown	4.64	3.82

FIG. 57.—DEATHS FROM CONSUMPTION AT CERTAIN GROUPS OF AGES IN 1000 DEATHS CAUSED BY THIS DISEASE.



In considering this table and diagram it must be borne in mind that they do not represent the relative liability to the disease at different ages, because the decrease of the living population at the higher ages is not taken into account.

It will be seen that the great majority of the deaths from consumption occur between the ages of 15 and 65, the greatest proportion in any decennium occurring between the ages of 20 and 30. The proportion of deaths between the ages of 15 and 35 is greater in the female than in the male. If we take the group of ages from 15 to 65 and compare the number of deaths reported as due to consumption with the total number of deaths from specified causes at the same group of ages, we find that the proportion is greatest in the large cities, being, per 1,000,000 deaths, for males, 307,154, and for females, 338,571, while in the rural districts it is, for males, 218,455, and for females, 298,583. At the same group of ages in those regions where distinctions of color and parentage are made, the proportions are, for whites, in each 1,000,000 deaths, males, 242,842, females, 302,046; for colored, males, 248,179, females, 326,973; for those of Irish parentage, males, 309,507, females, 375,636, and for those of German parentage, males, 249,498, females, 254,958. From these figures it would seem that the proportion of deaths from this cause in the colored race is but slightly greater than in the white, and that it is greatest of all in the Irish. At ages under 15 a great excess of deaths from this cause is reported in the colored race. These and other age relations are shown in the following table:

TABLE 58.—SHOWING FOR CERTAIN GROUPS OF AGES THE NUMBER OF DEATHS FROM CONSUMPTION, AND THE PROPORTION OF DEATHS FROM THIS CAUSE PER 1,000,000 DEATHS AT THE CORRESPONDING AGE GROUPS, WITH DISTINCTION OF SEX, OF RURAL AND CITIES, AND, FOR CERTAIN REGIONS, OF COLOR AND PARENTAGE.

Deaths from consumption in—		DEATHS.				PROPORTION IN 1,000,000 DEATHS AT CERTAIN AGES.			
		Under 5.	5–15.	15–65.	65 and over.	Under 5.	5–15.	15–65.	65 and over.
The United States	M.	2,460	1,030	32,559	4,276	16,369	32,285	239,224	81,345
	F.	2,248	1,964	42,407	3,946	17,621	60,904	306,699	82,150
Rural	M.	1,887	815	22,770	3,689	17,092	30,446	218,455	82,314
	F.	1,733	1,573	32,905	3,343	18,562	57,827	298,583	85,650
Cities	M.	573	215	9,789	587	14,370	41,878	307,154	75,742
	F.	515	391	9,502	603	15,055	77,502	338,571	66,978
White in 10 Grand Groups	M.	927	271	15,395	1,971	13,531	20,967	242,842	79,942
	F.	756	544	19,649	1,953	12,947	42,814	302,046	84,733
Colored in 10 Grand Groups	M.	574	419	3,987	301	25,308	92,005	248,179	71,650
	F.	637	761	6,409	287	31,861	151,957	326,973	69,610
Irish parentage in 14 Grand Groups	M.	103	63	3,897	399	15,744	40,541	309,507	98,934
	F.	89	116	4,354	339	16,120	80,780	375,636	86,767
German parentage in 14 Grand Groups	M.	84	46	2,361	297	10,771	26,744	249,498	98,802
	F.	72	60	1,787	175	11,072	36,832	254,958	74,691

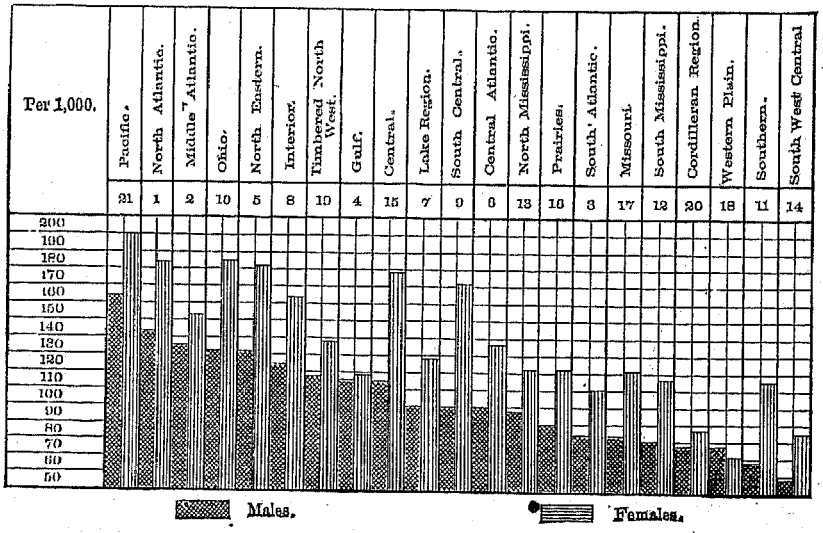
The geographical distribution of the deaths reported as due to this cause is shown by Map No. 12. The greatest proportion appears in New England and the middle states, the middle Atlantic coast, the Ohio valley, the western part of Kentucky, the central part of Tennessee, and on the coast of California. The special prevalence in those counties of Mississippi bordering on the Gulf coast, as indicated by the map, is, in part at least, due to the peculiar distribution of the population of this region as regards age. The proportions indicated in Florida, northern Minnesota, and eastern Colorado are much too great, because of the number of deaths occurring in these localities of persons who had contracted the disease elsewhere, and who went to these places because of their supposed freedom from influences producing or aggravating the disease. While the original schedules of deaths contain data from which it would be possible to make, in part at least, the necessary deductions to express the true tendency to this disease in these localities, such calculations have been made impossible from the want of clerical force. The proportion of deaths is greater in the interior of Michigan and Ohio than on the lake coast, and on the Gulf coast of Texas than in the interior of that state. The regions showing the least proportion of deaths are in southern and western Georgia, central Alabama, Arkansas, Kansas, and the western territories; the Appalachian region also shows a low proportion as compared with the country lying on either side.

The following table indicates the relative proportion of deaths from this cause in each of the 21 grand groups, with distinction of rural and cities, and, for certain regions, of white and colored, and Irish and German parentage:

TABLE 59.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM CONSUMPTION IN 1000 DEATHS FROM KNOWN CAUSES.

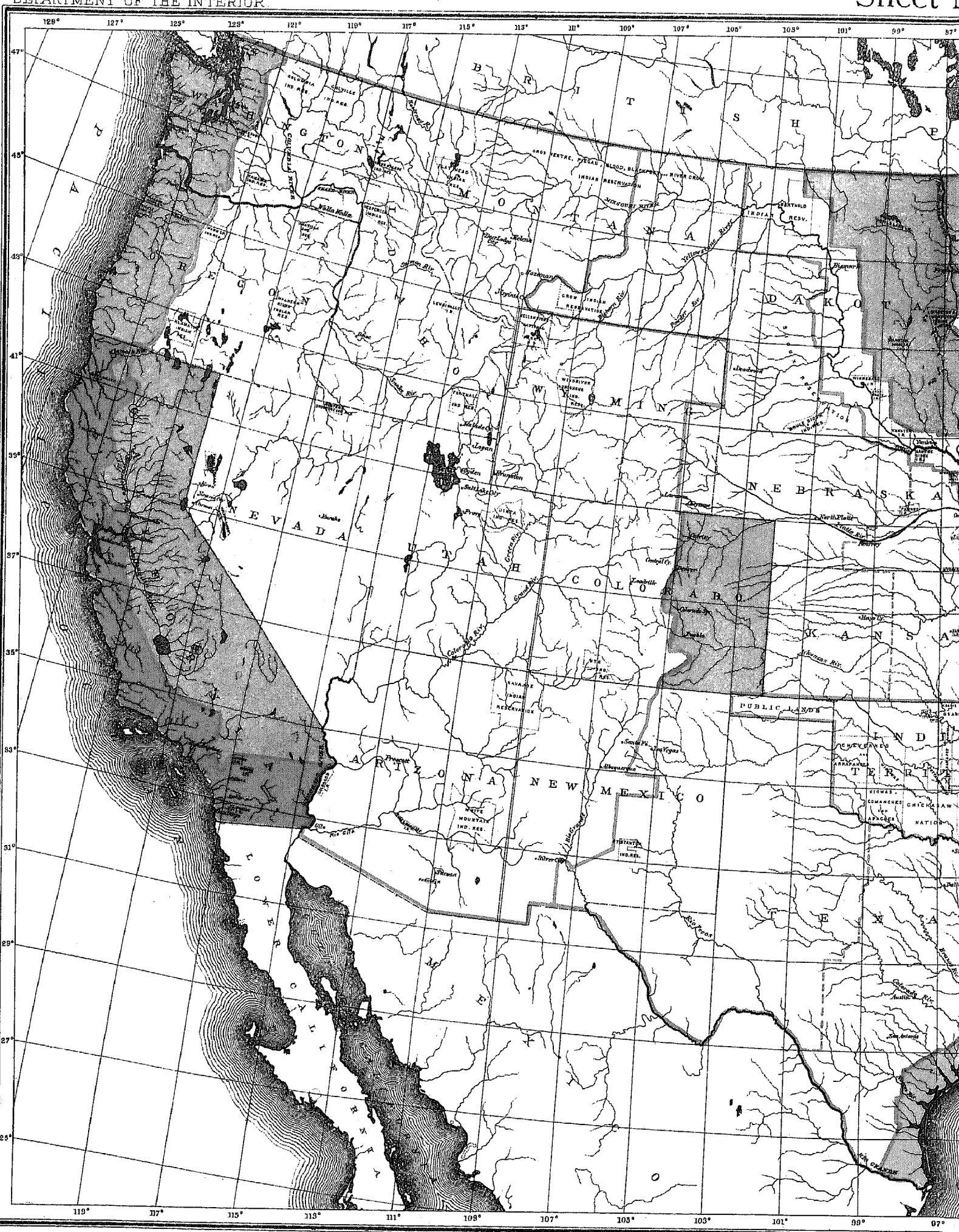
Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	101.9	146.6	131.9	144.3	126.2	139.1	198.4	123.6
1. North Atlantic Coast region	148.7	197.2	138.0	162.8	.....	.....	231.0	140.2
2. Middle Atlantic Coast region	136.2	168.5	136.8	148.0	140.9	175.1	212.6	147.3
3. South Atlantic Coast region	76.5	101.6	138.2	145.4	88.0	105.5	.....	.....
4. Gulf Coast region	96.0	100.9	151.2	153.2	115.8	120.6	.....	.....
5. Northeastern Hills and Plateaus	131.0	186.1	147.1	153.2	.....	.....	232.9	113.4
6. Central Appalachian region	99.7	136.9	123.7	146.7	.....	.....	183.7	143.2
7. Region of the Great Northern Lakes	109.8	156.8	94.7	101.0	.....	.....	201.4	116.1
8. The Interior Plateau	116.0	166.6	142.3	160.4	138.4	176.7	171.0	165.0
9. Southern Central Appalachian region	101.5	171.0	.....	.....	124.8	179.3	.....	.....
10. The Ohio River Belt	137.1	195.6	125.0	151.0	150.7	238.1	179.6	137.9
11. Southern Interior Plateau	69.0	116.5	.....	.....	83.3	100.4	.....	.....
12. South Mississippi River Belt	80.3	115.7	.....	.....	81.1	108.8	.....	.....
13. North Mississippi River Belt	91.5	125.3	116.9	118.8	.....	.....	145.5	100.2
14. Southwest Central region	59.6	84.4	.....	.....	70.3	77.0	.....	.....
15. Central region, plains and prairies	115.4	180.4	131.0	155.3	136.8	221.4	.....	.....
16. The Prairie region	91.1	122.0	.....	.....	.....	.....	140.2	81.5
17. Missouri River Belt	83.9	121.4	84.7	121.3	.....	.....	140.7	80.1
18. Region of the Western Plains	69.8	68.2	145.8	110.5	.....	.....	51.9	42.2
19. Heavily-timbered region of the Northwest	118.2	139.1	.....	.....	.....	.....	175.2	101.4
20. Cordilleran region	78.8	85.6	.....	.....	.....	.....	107.9	144.8
21. Pacific Coast region	155.9	184.1	170.4	139.8	.....	.....	146.0	113.9

FIG. 58.—DEATHS FROM CONSUMPTION IN 21 GRAND GROUPS, WITH DISTINCTION OF SEX, PER 1000 DEATHS FROM KNOWN CAUSES.



DEPARTMENT OF THE INTERIOR

Sheet N



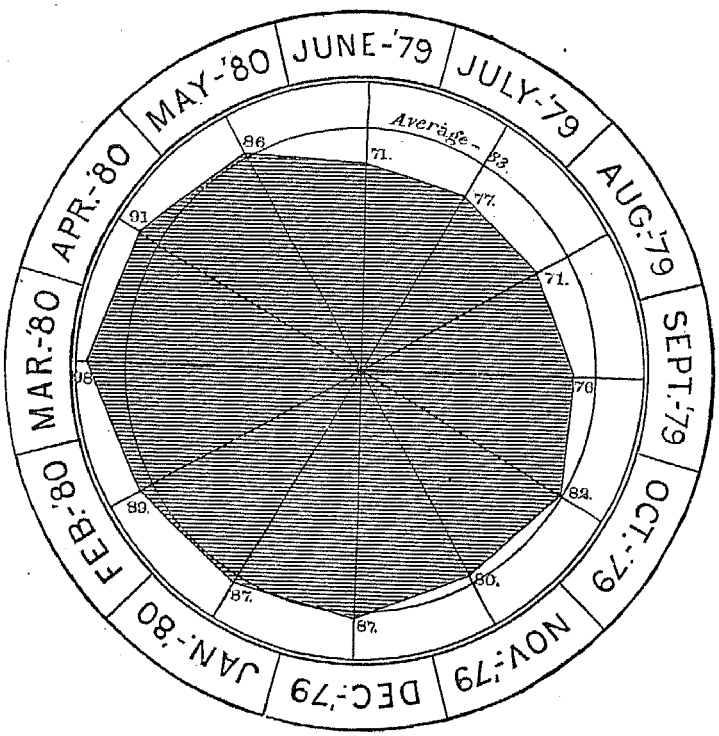
BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

The following table and diagram show the relations of deaths reported as due to consumption in the 31 registration cities with relation to the month of death. It will be seen that in the aggregate the distribution of deaths from this cause is tolerably uniform throughout the year, although somewhat larger in the winter and spring months, reaching its maximum in the month of March:

TABLE 60.—SHOWING FOR 31 REGISTRATION CITIES THE NUMBER OF DEATHS FROM CONSUMPTION BY MONTHS FOR EACH CITY, AND THE PROPORTION FOR EACH MONTH IN 1000 DEATHS FROM CONSUMPTION FOR ALL THE 31 CITIES.

Cities.	Totals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total	19,917	1,748	1,785	1,961	1,821	1,713	1,420	1,536	1,429	1,529	1,640	1,595	1,740
Baltimore, Md	1,162	86	104	122	113	95	77	90	87	94	85	95	114
Boston, Mass	1,211	121	102	122	109	102	97	83	87	81	92	101	114
Brooklyn, N. Y	1,691	129	150	171	132	139	104	132	130	168	148	140	139
Cambridge, Mass	141	11	5	14	13	11	15	11	14	15	15	5	12
Camden, N. J	110	7	6	10	9	12	8	8	7	12	9	11	11
Charleston, S. C	246	23	25	18	17	21	23	27	13	17	18	20	24
Chicago, Ill	843	73	80	93	98	51	66	54	61	51	77	63	76
Cincinnati, Ohio	707	57	58	64	68	62	48	60	52	51	69	47	71
Cleveland, Ohio	273	25	30	27	33	21	18	21	23	24	18	18	15
Fall River, Mass	135	11	12	19	13	16	7	12	10	9	6	10	10
Indianapolis, Ind	187	11	18	12	18	13	18	23	8	16	18	20	12
Jersey City, N. J	333	34	33	32	24	22	20	25	29	34	24	34	22
Lawrence, Mass	151	15	13	20	17	10	8	11	13	10	12	10	12
Louisville, Ky	402	35	34	35	44	48	45	30	24	34	20	16	37
Lowell, Mass	210	22	22	22	22	19	16	13	14	13	22	8	17
Lynn, Mass	111	6	6	12	12	8	10	10	10	8	10	6	13
Milwaukee, Wis	200	17	20	21	15	21	20	14	16	14	14	11	17
Nashville, Tenn	136	7	15	17	13	16	10	9	7	13	7	11	11
Newark, N. J	388	48	32	33	29	38	33	34	24	20	31	31	26
New York, N. Y	4,290	405	373	386	395	353	281	330	285	329	372	398	383
New Orleans, La	852	66	70	77	78	77	49	89	56	67	94	64	65
Paterson, N. J	153	12	12	12	11	20	12	10	14	9	9	14	18
Philadelphia, Pa	2,677	249	239	280	223	249	179	210	216	194	205	208	225
Pittsburgh, Pa	293	26	32	33	32	26	20	22	21	21	17	24	19
Providence, R. I	308	29	32	35	28	21	16	25	24	20	31	26	21
Richmond, Va	265	19	30	23	22	29	19	21	17	19	25	15	26
San Francisco, Cal	717	70	59	74	80	62	65	32	43	55	65	50	62
Saint Louis, Mo	804	50	67	77	72	56	65	58	65	59	67	74	94
Washington, D. C	618	48	72	67	53	64	51	49	39	44	35	43	53
Wilmington, Del	157	17	9	20	16	11	14	12	11	9	13	10	15
Worcester, Mass	146	19	16	13	12	20	6	11	9	10	12	12	6
Per 1000	----	87.76	89.62	98.45	91.42	86.00	71.29	77.12	71.74	76.76	82.34	80.08	87.36

FIG. 59.—DEATHS FROM CONSUMPTION, BY MONTHS, IN 31 REGISTRATION CITIES.



PNEUMONIA.

The total number of deaths reported as due to pneumonia was 63,053, of which 35,493 were of males and 27,560 of females. Next to consumption it caused the greatest number of deaths, giving 8,330 in each 100,000 deaths from all causes, as against 8,128 in 1870, 6,874 in 1860, and 3,755 in 1850. In England and Wales, for the ten years 1870–'79, it caused in each 100,000 deaths from specified causes 4,724, and in 1880, 4,772.

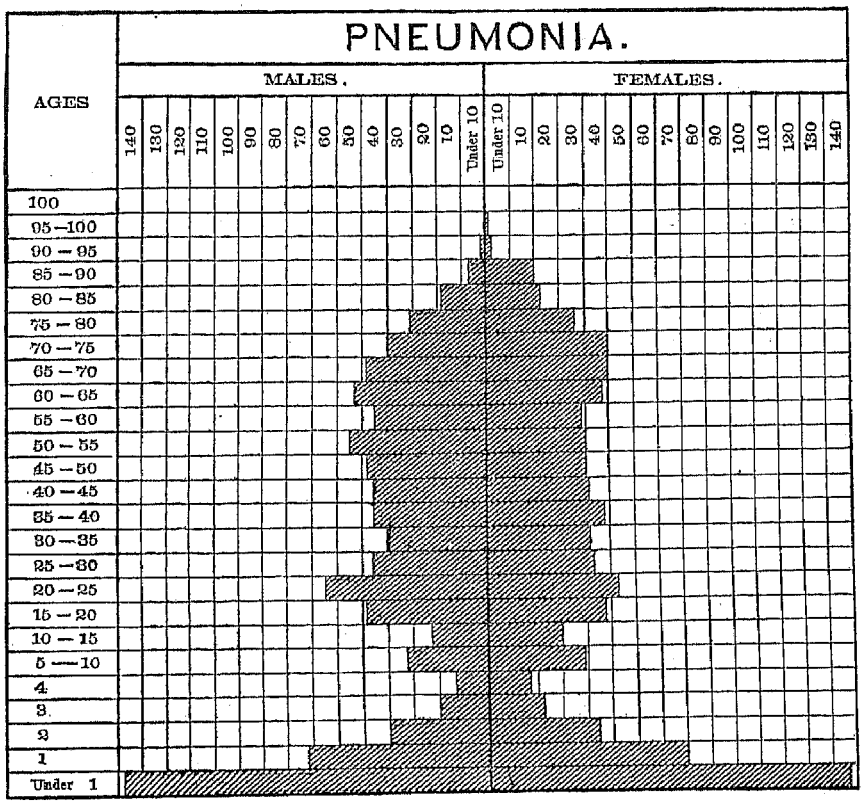
The mean age at death of those reported as dying of pneumonia during the census year was 32 years.

The following table and diagram show the relations to age and sex of the deaths reported as due to pneumonia:

TABLE 61.—SHOWING THE NUMBER OF DEATHS FROM PNEUMONIA AT EACH GROUP OF AGES IN 1000 DEATHS REPORTED AS CAUSED BY THIS DISEASE.

Ages.	Males.	Females.	Ages.	Males.	Females.	Ages.	Males.	Females.
Under 1 year	147.50	146.54	15–20 years	49.28	47.41	60–65 years	53.07	46.72
1 year	73.99	81.83	20–25 years	65.53	53.35	65–70 years	48.26	50.22
2 years	40.36	44.24	25–30 years	46.67	44.46	70–75 years	40.82	49.12
3 years	20.49	23.38	30–35 years	41.81	43.73	75–80 years	31.16	36.38
4 years	13.42	15.55	35–40 years	45.40	46.63	80–85 years	18.19	23.74
Total under 5 years	295.76	311.54	40–45 years	45.74	41.80	85–90 years	7.27	10.27
5–10 years	32.41	39.36	45–50 years	48.60	40.68	90–95 years	2.18	3.20
10–15 years	33.88	30.92	50–55 years	55.87	40.35	95 and over	0.96	1.64
			55–60 years	46.42	38.42	Unknown	4.61	3.61

FIG. 60.—DEATHS FROM PNEUMONIA AT CERTAIN GROUPS OF AGES IN 1000 DEATHS CAUSED BY THIS DISEASE.



The proportion of deaths from pneumonia is greater among males than among females, and is greater at the ages above 60 than the above table would indicate.

The following table shows the relations of the deaths reported as due to this cause at certain groups of ages to cities, color, and parentage:

TABLE 62.—SHOWING FOR CERTAIN GROUPS OF AGES THE NUMBER OF DEATHS FROM PNEUMONIA, AND THE PROPORTION OF DEATHS FROM THIS CAUSE PER 1,000,000 DEATHS AT THE CORRESPONDING AGE GROUPS, WITH DISTINCTION OF SEX, OF RURAL AND CITIES, AND, FOR CERTAIN REGIONS, OF COLOR AND PARENTAGE.

Deaths from pneumonia in—		DEATHS.				PROPORTION IN 1,000,000 DEATHS AT CERTAIN AGES.			
		Under 5.	5–15.	15–65.	65 and over.	Under 5.	5–15.	15–65.	65 and over.
The United States	M.	10,449	1,987	17,608	5,286	69,532	62,283	129,374	100,559
	F.	8,555	1,930	12,182	4,794	67,060	59,851	88,104	99,804
Rural	M.	7,935	1,704	14,977	4,696	71,874	63,656	143,689	104,784
	F.	6,310	1,646	10,360	4,048	67,584	60,510	94,008	103,712
Cities	M.	2,514	283	2,631	590	63,049	55,123	82,554	76,129
	F.	2,245	284	1,822	746	65,630	56,293	64,921	82,861
White in 10 Grand Groups	M.	4,201	778	7,784	2,359	61,320	60,193	122,786	95,660
	F.	3,453	728	5,573	2,213	59,136	57,296	85,669	96,013
Colored in 10 Grand Groups	M.	2,099	431	2,575	534	92,544	95,565	160,286	127,113
	F.	1,726	490	1,973	318	86,330	99,641	100,658	77,128
Irish parentage in 14 Grand Groups	M.	450	79	1,442	392	68,786	50,837	114,526	97,198
	F.	398	74	964	400	72,128	51,532	83,168	102,380
German parentage in 14 Grand Groups	M.	539	89	1,050	268	69,111	51,744	110,958	89,155
	F.	410	88	577	225	63,038	54,021	82,323	96,031

For each 1000 deaths of females from this cause there were reported 1,287 deaths in males. This excess of mortality in males is not so great as that which appears from the reports of the registrar-general of England, according to which, during the year 1880, the proportion was 1,460 males to each 1000 females. If we exclude the deaths reported as occurring from this cause under 5 years of age we find that there were 25,044 males and 19,005

females, giving a proportion of 1,317 males to each 1000 females. According to the registrar-general's returns making the same calculations, there were 69,133 males and 43,935 females, giving a proportion of 1,573 males to each 1000 females.

In the report(*a*) on acute pneumonia issued by the Collective Investigation Committee of the British Medical Association in July, 1884, out of 1,039 cases of acute pneumonia 704 were in males, with 120 deaths, giving a mortality of 17.0 per cent., and in females there were 356 cases and 71 deaths, giving a mortality of 19.9 per cent. From this it would appear that the number of cases of acute pneumonia is less in females than in males, but that the mortality in females in proportion to the number of cases is decidedly greater.

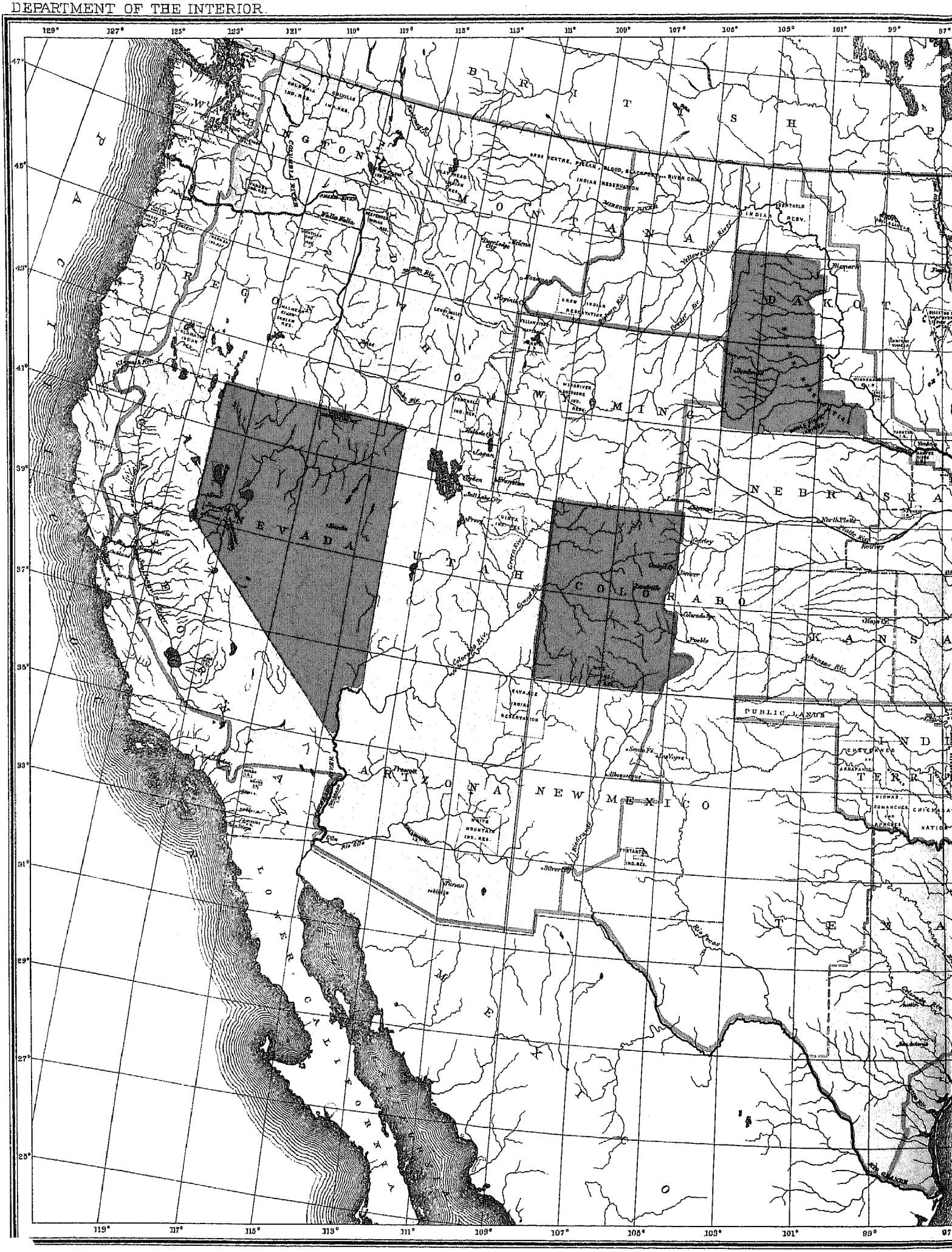
Pneumonia causes a greater proportion of deaths in the rural districts (92.9) than in the cities (69.0), and among the colored (105.5) than among the whites (82.5). The proportion was somewhat above the average in the Irish (89.1) and a little below it in the German (82.1). The comparative excess of mortality from pneumonia in the colored race in the South has been known for a long time.

The following table and diagram, in connection with Map No. 13, show the geographical distribution of this disease as indicated by the reports from various localities. From these it appears that pneumonia was especially prevalent in the northwestern part of Louisiana, in Arkansas, in the lower part of the valley of the Missouri river, in western Dakota, in western Colorado, and in Nevada. It was least prevalent in the coast regions, and, as a rule, more prevalent in the South and West than in the North and East:

TABLE 63.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM PNEUMONIA IN 1000 DEATHS FROM KNOWN CAUSES.

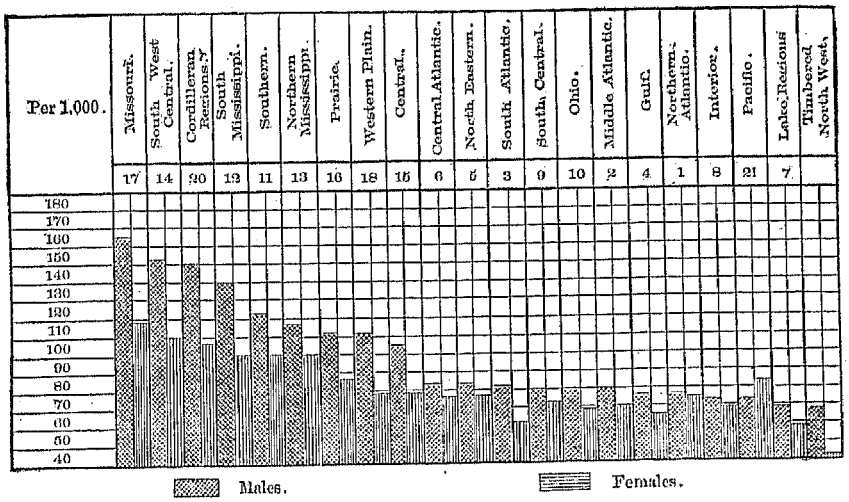
Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	102.4	82.9	71.1	66.6	82.5	105.5	89.1	82.1
1. North Atlantic Coast region	75.0	73.6	75.9	76.8	.....	.....	86.9	70.9
2. Middle Atlantic Coast region	86.0	74.1	77.9	70.7	74.7	86.9	86.7	81.6
3. South Atlantic Coast region	88.3	63.6	41.7	33.5	59.1	81.7	.....	.....
4. Gulf Coast region	90.1	71.6	54.1	52.0	59.7	86.2	.....	.....
5. Northeastern Hills and Plateaus	83.3	75.9	89.5	96.1	.....	.....	90.0	51.5
6. Central Appalachian region	83.7	77.4	85.4	65.9	.....	.....	77.3	73.4
7. Region of the Great Northern Lakes	77.9	60.5	58.1	56.6	.....	.....	70.4	69.5
8. The Interior Plateau	80.9	73.5	58.1	57.2	68.2	88.2	82.4	71.7
9. Southern Central Appalachian region	80.6	73.8	.....	.....	68.0	107.2	.....	.....
10. The Ohio River Belt	84.4	66.6	69.6	74.1	73.1	92.8	68.4	73.8
11. Southern Interior Plateau	122.3	100.3	.....	.....	99.8	119.8	.....	.....
12. South Mississippi River Belt	139.9	102.8	.....	.....	113.4	126.5	.....	.....
13. North Mississippi River Belt	132.4	112.4	74.4	67.0	.....	.....	127.7	110.4
14. Southwest Central region	152.8	111.4	.....	.....	129.8	146.1	.....	.....
15. Central region, plains and prairies	106.5	78.9	76.3	70.5	91.3	95.2	.....	.....
16. The Prairie region	112.8	85.2	.....	.....	.....	.....	109.6	79.8
17. Missouri River Belt	164.3	119.0	166.6	113.9	.....	.....	176.5	160.2
18. Region of the Western Plains	104.3	76.3	170.1	99.4	.....	.....	220.8	105.6
19. Heavily-timbered region of the Northwest	67.0	41.5	.....	.....	.....	.....	68.6	46.5
20. Cordilleran region	150.0	106.8	.....	.....	.....	.....	192.1	148.4
21. Pacific Coast region	60.6	64.2	83.8	70.2	.....	.....	83.8	53.0

a *The Collective Investigation Record*, edited by the Collective Investigation Committee of the British Medical Association, Professor Humphrey, M. D., F. R. S., Chairman. Vol. II, p. 30. London, July, 1884.


BRITISH POSSESSIONS
WASHINGTON
OREGON
CALIFORNIA
IDAHO
MONTANA
WYOMING
NEVADA
UTAH
COLORADO
ARIZONA
NEW MEXICO
NEBRASKA
KANSAS
DAKOTA
TEXAS
INDIAN TERRITORY
PUBLIC LANDS
LOWER CALIFORNIA
MEXICO
Columbia River
Snake River
Yellowstone River
Missouri River
Platte River
Colorado River
Rio Grande
Rio Pecos
Rio Gila
Green River
Salt Lake City
Ogden
Logan
Virginia City
Carson City
Reno
Denver
Pueblo
Santa Fe
Albuquerque
Prescott
Tucson
El Paso
Silver City
Fort Yuma
San Diego
Los Angeles
San Francisco
Sacramento
Portland
Walla Walla
Boise City
Helena
Fort Benton
Bismarck
Omaha
Cheyenne
Laramie
Fort Union
Fort Leavenworth
Fort Gibson
Fort Smith
Fort Arbuckle
Fort Belknap
Fort Griffin
Fort Concho
Fort Davis
Fort Stockton
Fort Clark
Fort Duncan
Fort Brown
Fort Bliss
Fort Wingate
Fort Craig
Fort Selden
Fort Bowie
Fort Whipple
Fort Mojave
Fort Tejon
Fort Crook
Fort Klamath
Fort Hall
Fort Lapwai
Fort Colville
Fort Simcoe
Fort Walla Walla
Fort Vancouver
Fort Townsend
Fort Steilacoom
Fort Canby
Fort Stevens
Fort Lincoln
Fort Abercrombie
Fort Ridgely
Fort Snelling
Fort Ripley
Fort Pembina
Fort Totten
Fort Berthold
Fort Buford
Fort Peck
Fort Shaw
Fort Custer
Fort Ellis
Fort Benton
Fort Maginnis
Fort Keogh
Fort Meade
Fort Sully
Fort Randall
Fort Niobrara
Fort Robinson
Fort Sidney
Fort McPherson
Fort Kearney
Fort Riley
Fort Leavenworth
Fort Scott
Fort Gibson
Fort Arbuckle
Fort Sill
Fort Reno
Fort Supply
Fort Dodge
Fort Hays
Fort Wallace
Fort Lyon
Fort Garland
Fort Lewis
Fort Crawford
Fort Snelling
Fort Ripley
Fort Abercrombie
Fort Totten
Fort Berthold
Fort Buford
Fort Peck
Fort Shaw
Fort Custer
Fort Ellis
Fort Benton
Fort Maginnis
Fort Keogh
Fort Meade
Fort Sully
Fort Randall
Fort Niobrara
Fort Robinson
Fort Sidney
Fort McPherson
Fort Kearney
Fort Riley
Fort Leavenworth
Fort Scott
Fort Gibson
Fort Arbuckle
Fort Sill
Fort Reno
Fort Supply
Fort Dodge
Fort Hays
Fort Wallace
Fort Lyon
Fort Garland
Fort Lewis
Fort Crawford


MAP OF THE
UNITED STATES
SHOWING THE
DISTRIBUTION OF DEATHS
FROM
PNEUMONIA,
AS COMPARED WITH TOTAL DEATHS
FROM KNOWN CAUSES.
—Under 75 per 1000.
— 75 to 99 "
—100 to 124 "
—125 to 149 "
—150 to 174 "
—175 and over, "

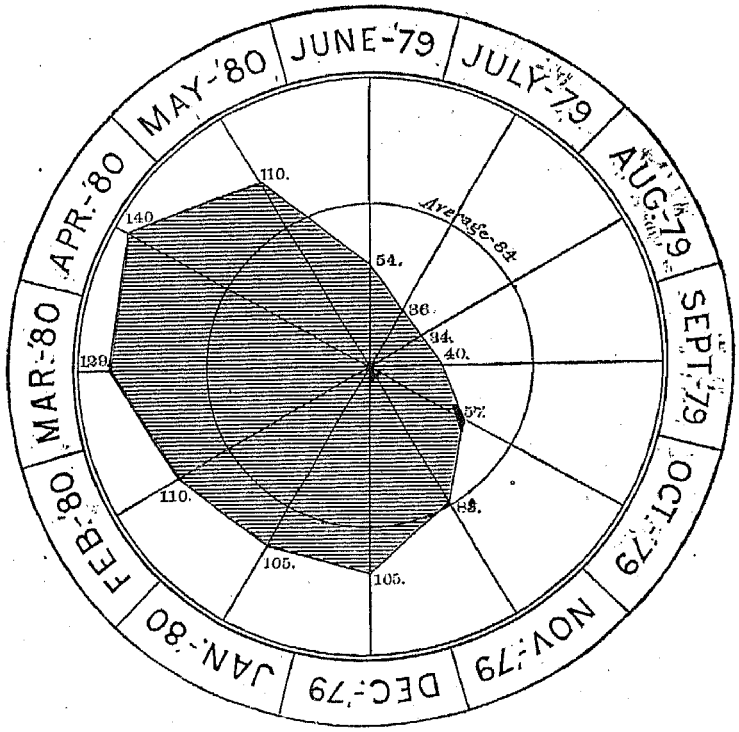
FIG. 61.—DEATHS FROM PNEUMONIA IN 21 GRAND GROUPS, WITH DISTINCTION OF SEX, PER 1000 DEATHS FROM KNOWN CAUSES.



The evidence with regard to pneumonia furnished by the data of the Census of 1880 tends to favor the opinion that it is not a disease especially due to climate and more particularly to the influence of cold, and to support the views of some modern pathologists, that a large proportion of the deaths reported as due to this disease is due to a specific infectious cause. No doubt several distinct diseases are included under the term "pneumonia" as reported to the census enumerators.

The following diagram shows the distribution of the deaths reported as due to pneumonia in the 31 registration cities, with reference to the month of death. It will be seen that by far the greater proportion occur from November to May, that is, during the winter and spring months, and that the number of deaths from this cause is comparatively small in the remaining portion of the year, indicating very decidedly the influence of meteorological conditions upon this cause of death in the large cities:

FIG. 62.—DEATHS FROM PNEUMONIA, BY MONTHS, IN 31 REGISTRATION CITIES.



SCROFULA AND TABES.

The total number of deaths reported as due to scrofula and tabes during the census year was 5,000, of which 2,510 were of males and 2,490 of females. In each 100,000 deaths from all causes these diseases are reported as causing 661, as against 694 in 1870, 686 in 1860, and 576 in 1850. In England and Wales, for the 10 years 1870–'79, out of each 100,000 deaths from specified causes, scrofula is reported as causing 583, and tabes mesenterica 1,454; in 1880 the figures were, for scrofula, 708, and for tabes, 1,808.

The mean age at death of those reported as dying from scrofula and tabes during the census year was 15 years. The The greater proportion of deaths reported as due to these causes occurred in children under 5 years of age. The

proportion of deaths was greater in the rural districts (7.5) than in the large cities (4.7). In those regions where the distinction of color was made, the proportion of deaths from these causes was greater among the colored (16.0) than among the whites (6.2). The proportion was comparatively low among those of Irish parentage (2.7) and of German parentage (2.6).

The following table shows, by grand groups, the distribution of deaths from these causes:

TABLE 64.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM SCROFULA AND TABES IN 1000 DEATHS FROM KNOWN CAUSES.

Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	7.40	7.70	4.40	5.10	6.2	16.0	2.7	2.6
1. North Atlantic Coast region	3.87	3.44	2.81	5.48	.....	.....	2.9	3.0
2. Middle Atlantic Coast region	5.15	4.86	5.59	5.38	4.2	13.3	2.4	3.4
3. South Atlantic Coast region	8.09	8.69	8.34	7.83	6.7	9.8	.....	.....
4. Gulf Coast region	3.64	6.30	7.09	6.00	5.1	5.9	.....	.....
5. Northeastern Hills and Plateaus	4.89	5.03	2.13	2.43	.....	.....	2.4	.....
6. Central Appalachian region	4.66	5.08	1.24	5.38	.....	.....	2.3	2.8
7. Region of the Great Northern Lakes	3.22	4.45	3.61	3.33	.....	.....	4.5	2.4
8. The Interior Plateau	8.10	9.57	3.65	4.90	4.6	22.8	3.3	4.5
9. Southern Central Appalachian region	17.82	14.91	.....	.....	12.0	30.3	.....	.....
10. The Ohio River Belt	9.38	10.70	4.03	5.49	7.1	24.8	1.2	1.7
11. Southern Interior Plateau	9.11	9.11	.....	.....	7.1	10.5	.....	.....
12. South Mississippi River Belt	6.04	9.59	.....	.....	4.4	10.2	.....	.....
13. North Mississippi River Belt	5.23	4.15	2.50	4.83	.....	.....	0.8	2.0
14. Southwest Central region	6.05	5.21	.....	.....	5.2	7.4	.....	.....
15. Central region, plains and prairies	12.96	12.80	7.00	11.40	8.8	38.4	.....	.....
16. The Prairie region	6.23	5.84	.....	.....	.....	.....	2.0	2.5
17. Missouri River Belt	6.24	8.99	11.30	.....	.....	.....	2.5	2.6
18. Region of the Western Plains	4.86	4.63	3.47	.....	.....	.....	12.9	7.0
19. Heavily-timbered region of the Northwest	4.38	2.91	.....	.....	.....	.....	1.9	1.0
20. Cordilleran region	3.04	3.72	.....	.....	.....	.....	3.1	.....
21. Pacific Coast region	3.43	8.18	3.30	5.89	.....	.....	1.5	1.5

The following table shows the relations of deaths from these causes at certain groups of ages to cities, color, and parentage:

TABLE 65.—SHOWING FOR CERTAIN GROUPS OF AGES THE NUMBER OF DEATHS FROM SCROFULA AND TABES, AND THE PROPORTION OF DEATHS FROM THESE CAUSES PER 1,000,000 DEATHS AT THE CORRESPONDING AGE GROUPS, WITH DISTINCTION OF SEX, OF RURAL AND CITIES, AND, FOR CERTAIN REGIONS, OF COLOR AND PARENTAGE.

Deaths from scrofula and tabes in—		DEATHS.				PROPORTION IN 1,000,000 DEATHS AT CERTAIN AGES.			
		Under 5.	5-15.	15-65.	65 and over.	Under 5.	5-15.	15-65.	65 and over.
The United States	M.	1,329	360	688	124	8,843	11,284	5,055	2,358
	F.	1,223	368	778	111	9,580	11,411	5,626	2,311
Rural	M.	1,086	320	603	112	9,837	11,954	5,785	2,499
	F.	966	328	693	101	10,346	12,058	6,288	2,588
Cities	M.	243	40	85	12	6,094	7,791	2,607	1,548
	F.	257	40	85	10	7,513	7,920	3,029	1,111
White in 10 Grand Groups	M.	580	98	286	67	8,466	7,582	4,511	2,718
	F.	557	96	324	54	9,539	7,555	4,981	2,343
Colored in 10 Grand Groups	M.	377	172	208	17	16,622	38,137	12,947	4,047
	F.	333	200	218	17	16,656	39,936	11,122	4,123
Irish parentage in 14 Grand Groups	M.	24	6	25	8	3,669	3,861	1,986	1,984
	F.	24	4	31	5	4,349	2,786	2,674	1,280
German parentage in 14 Grand Groups	M.	30	4	21	6	3,847	2,326	2,219	1,996
	F.	25	2	16	3	3,844	1,228	2,283	1,280

ALCOHOLISM AND VENEREAL DISEASES.

The census returns are especially defective and inaccurate as regards the number of deaths reported as due to alcoholism and venereal diseases, and in this respect they resemble all other vital statistics.

The total number of deaths reported as due to alcoholism was 1,592, or 2.22 per 1000 deaths from known causes, of which 1,338 were of males and 254 of females, giving the proportion of deaths from known causes for males 3.59

and for females 0.73 per 1000. In England and Wales for the ten years 1870–'79 the proportion was 1.82 and in 1880, 1.80 per 1000 deaths from all causes.

As a rule, the proportion of deaths reported as due to this cause is about twice as great in the large cities as in the rest of the country, the figures being for cities 3.8 and for the rural districts 1.7 per 1000 deaths from known causes. The South Atlantic, Gulf Coast, and Lake regions are exceptions to this rule, and the highest proportion of all, viz, 14.79 per 1000 in males, is reported from the Cordilleran or mining region. The highest proportion of deaths from this cause in the cities is reported from Denver, viz, 13.89 in males and 5.49 in females per 1000 deaths. The next highest proportion in cities occurs in Saint Louis, Minneapolis, and Saint Paul, the figures being for males 8.63 and for females 4.55 per 1000 deaths. In New Orleans the proportions are males 4.84, females 4.0. The mean age at death of those reported as dying of alcoholism during the census year was 45 years. The great majority of deaths reported as due to this cause occur between the ages of 30 and 65 years. The proportion in those parts of the country in which the color distinction is made is much greater among the whites than among the colored, and where the distinction of parentage is made it is much greater among the Irish than among the Germans, the figures being for the Irish 6.7, for the Germans 2.7, for the whites 2.5, and for the colored 0.7 per 1000 deaths from known causes. A large proportion of the deaths reported as due to alcoholism occur in connection with delirium tremens, and this form of disease is rare in the colored race.

The number of deaths reported as due to venereal diseases was 1,217, or 1.69 per 1000 deaths from known causes, of which 655 occurred in males and 562 in females, giving a proportion of deaths from known causes of males 1.76, females 1.62, per 1000. In England and Wales for the 10 years 1870–'79 the proportion of deaths reported as due to syphilis was 3.86, and in 1880, 4.1 per 1000 deaths from all causes. The proportion of deaths reported as due to this cause is about twice as great in the large cities as in the rest of the country, the proportions being for the cities 2.7, and for the rural districts 1.3 per 1000 deaths. The proportion is less in New Orleans than for the average of the Gulf coast, being in the city, males 1.93, females 1.60, and in the rest of this region, males 3.26, females 2.17 per 1000 deaths. It is highest of all on the Pacific coast, excluding San Francisco, being males 8.01, females 2.34, and in San Francisco and Oakland, males 3.63, females 3.75. In those parts of the country where the distinctions are made between white and colored, and Irish and German parentage, the proportions are, colored 3.0, whites 1.7, Irish 1.4, and German 1.3 per 1000 deaths from known causes. A large part of the deaths reported under this head are from hereditary syphilis, about 43 per cent. occurring in children under 5 years of age. The mean age at death of those reported as dying of venereal diseases for the census year was 22 years.

HEART DISEASE AND DROPSY.

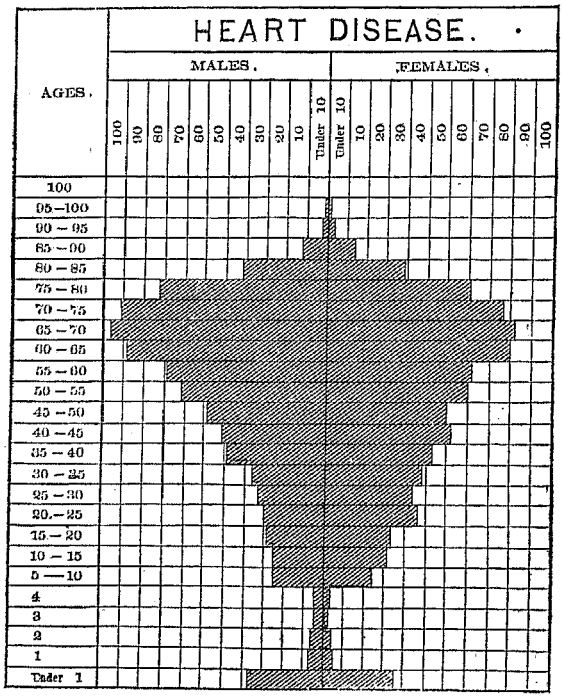
The total number of deaths reported as due to heart disease and dropsy was 40,856, of which 20,319 were males and 20,537 females. Dropsy alone caused death in 6,980 males and 7,808 females, being 1,954 deaths out of every 100,000 deaths from all causes, as against 1,596 in 1870, 3,211 in 1860, and 3,473 in 1850. The apparent decrease in deaths from this cause is no doubt mainly due to improvements in diagnosis, owing to which deaths which formerly were reported under the vague general designation of dropsy, which is merely a symptom, are now reported as due to diseases of the heart or liver or to Bright's disease, etc. Diseases of the circulatory system, including the heart, caused, in the census year, 3,776 deaths out of each 100,000 deaths from all causes, as against 3,460 in 1870, 1,999 in 1860, and 991 in 1850. These figures confirm the statement just made, that much of what thirty years ago was reported as dropsy is now reported as heart disease; and for this reason, as well as to permit of a comparison presently to be referred to, heart disease and dropsy are grouped together in the present study. They caused a greater proportion of deaths in the rural districts (59.7) than in the large cities (46.4), and a greater proportion in the colored (64.5) than in the white (56.1), and in those of Irish parentage (62.3) than in those of German parentage (60.9). The proportion of deaths reported as due to these causes was somewhat greater in females than in males, corresponding in this respect to English statistics.

The mean age at death of those reported as dying of heart disease during the census year was 50 years. The following table and diagram show the relations to age distribution of the deaths reported as due to heart disease:

TABLE 66.—SHOWING THE NUMBER OF DEATHS FROM HEART DISEASE AT EACH GROUP OF AGES IN 1000 DEATHS CAUSED BY THIS DISEASE.

Ages.	Males.	Females.	Ages.	Males.	Females.	Ages.	Males.	Females.
Under 1 year	37.58	33.69	15–20 years	28.77	34.64	60–65 years	99.17	89.88
1 year	7.23	5.21	20–25 years	30.80	47.34	65–70 years	106.48	92.95
2 years	5.95	4.02	25–30 years	33.13	43.56	70–75 years	101.88	87.51
3 years	4.89	3.00	30–35 years	36.82	48.92	75–80 years	82.30	71.33
4 years	4.22	4.58	35–40 years	49.92	53.18	80–85 years	42.32	39.61
			40–45 years	52.18	62.10	85–90 years	13.48	14.05
Total under 5 years	59.86	50.50	45–50 years	58.81	59.50	90–95 years	3.16	3.47
5–10 years	24.47	25.17	50–55 years	71.61	70.86	95 and over	1.28	1.66
10–15 years	24.47	32.19	55–60 years	70.07	71.57	Unknown	4.44	4.42

FIG. 63.—DEATHS FROM HEART DISEASE AT CERTAIN GROUPS OF AGES IN 1000 DEATHS CAUSED BY THIS DISEASE.



The geographical distribution of the deaths reported as due to heart disease and dropsy is shown by Map No. 15, and also by the following table showing the proportion of deaths per 1000 deaths from known causes by grand groups, with distinction of rural and cities, of color, and of parentage.

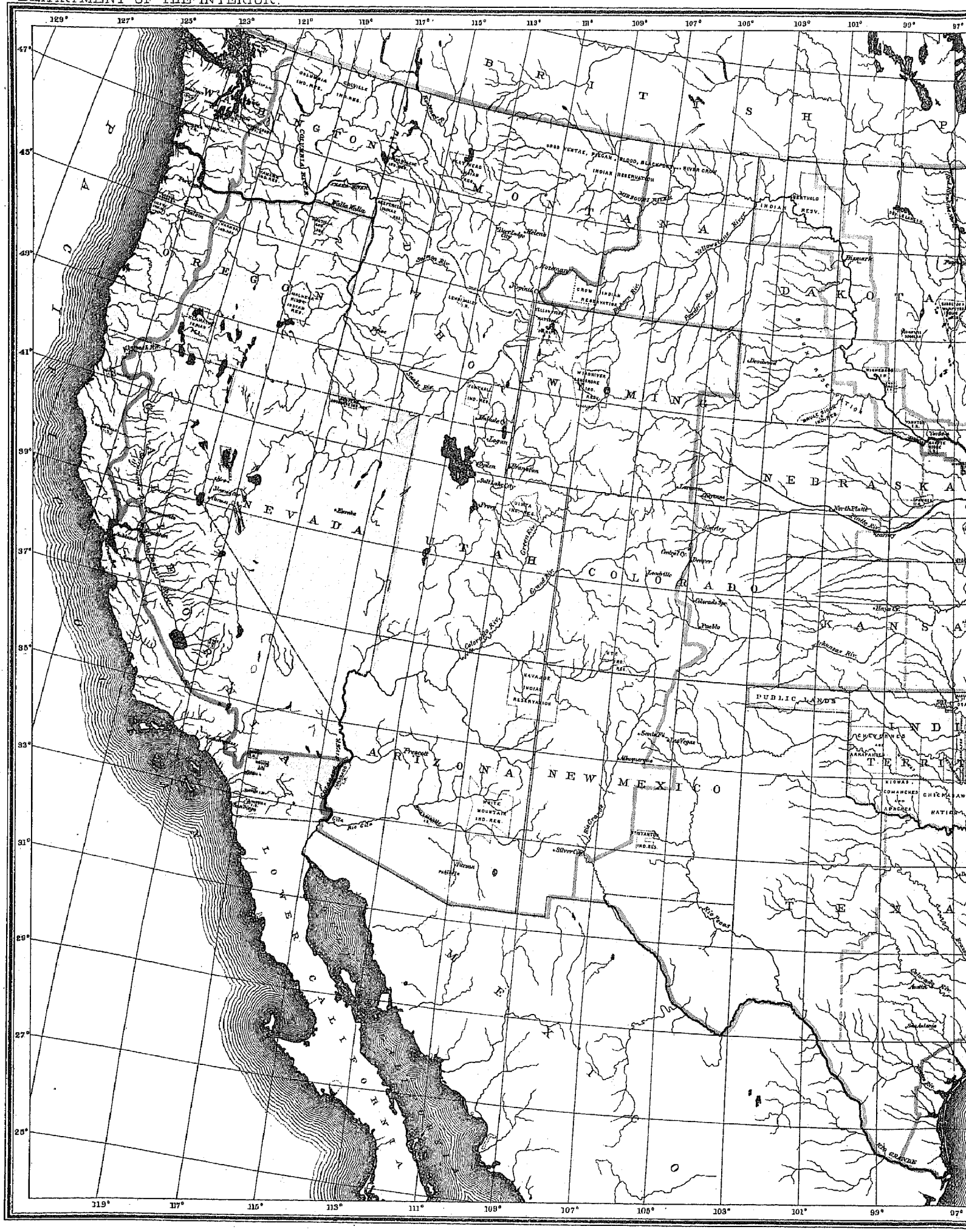
TABLE 67.—SHOWING FOR RURAL AND CITIES, WITH DISTINCTION OF SEX, AND FOR WHITE AND COLORED, IRISH AND GERMAN PARENTAGE, THE PROPORTION OF DEATHS FROM HEART DISEASE AND DROPSY IN 1000 DEATHS FROM KNOWN CAUSES.

Grand Groups.	RURAL.		CITIES.		White.	Colored.	Irish parentage.	German parentage.
	Male.	Female.	Male.	Female.				
Total	57.6	61.9	44.2	48.9	56.1	64.5	62.3	60.9
1. North Atlantic Coast region	78.4	70.9	50.4	55.1	.....	.....	57.1	63.2
2. Middle Atlantic Coast region	59.4	64.2	40.5	45.0	47.8	52.5	53.0	53.3
3. South Atlantic Coast region	80.9	85.2	50.0	72.6	91.5	75.2	.....	.....
4. Gulf Coast region	64.9	70.5	44.7	52.4	53.2	70.2	.....	.....
5. Northeastern Hills and Plateaus	78.4	80.7	64.9	62.0	.....	.....	68.7	97.0
6. Central Appalachian region	68.2	67.9	48.2	71.3	.....	.....	63.5	82.0
7. Region of the Great Northern Lakes	63.1	72.5	40.9	43.7	.....	.....	73.8	59.2
8. The Interior Plateau	76.1	77.9	55.5	61.3	72.4	64.7	78.4	90.4
9. Southern Central Appalachian region	60.4	63.0	.....	.....	61.6	62.4	.....	.....
10. The Ohio River Belt	54.5	57.1	35.8	42.1	51.7	49.8	73.9	62.6
11. Southern Interior Plateau	67.3	79.4	.....	.....	71.6	74.9	.....	.....
12. South Mississippi River Belt	42.4	56.8	.....	.....	35.0	60.2	.....	.....
13. North Mississippi River Belt	51.0	47.4	32.1	31.4	.....	.....	81.7	61.3
14. Southwest Central region	36.7	44.4	.....	.....	36.8	55.4	.....	.....
15. Central region, plains and prairies	50.0	53.2	41.3	54.8	51.6	50.9	.....	.....
16. The Prairie region	45.7	46.0	.....	.....	.....	.....	64.1	59.9
17. Missouri River Belt	41.4	41.2	33.8	40.4	.....	.....	63.9	38.7
18. Region of the Western Plains	27.3	29.4	38.1	27.5	.....	.....	39.0	42.2
19. Heavily-timbered region of the Northwest	59.5	57.3	.....	.....	.....	.....	99.0	61.2
20. Cordilleran region	40.6	36.2	.....	.....	.....	.....	65.1	81.3
21. Pacific Coast region	65.5	44.3	51.4	42.3	.....	.....	59.9	68.6

It will be seen that the greatest proportion of deaths from these affections occurred in New England and New York and on the south Atlantic and Gulf coasts, the proportion being also high in central Ohio, Michigan, and Wisconsin. They were less frequent in the Ohio valley and west of the Mississippi river.

DEPARTMENT OF THE INTERIOR.

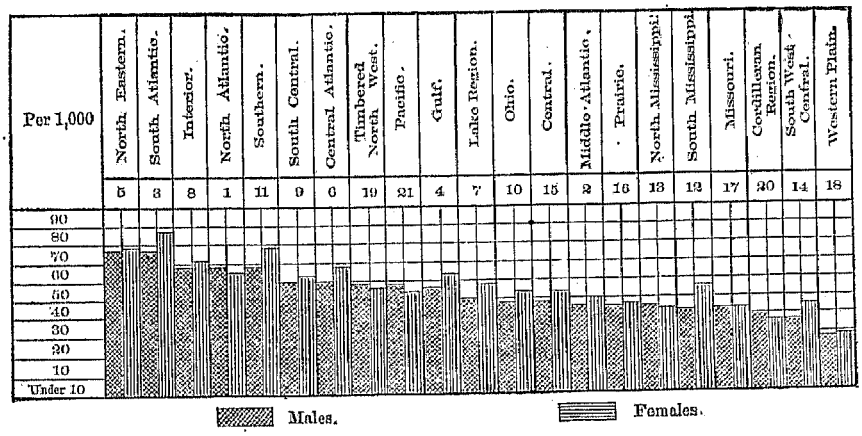
Sheet N



BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

The following diagram illustrates the proportions of deaths from heart disease and dropsy in the 21 grand groups, with distinction of sex:

FIG. 64.—DEATHS FROM HEART DISEASE AND DROPSY IN 21 GRAND GROUPS, WITH DISTINCTION OF SEX, PER 1000 DEATHS FROM KNOWN CAUSES.



In his report on the distribution of heart disease and dropsy in England and Wales, based on the study of the prevalence of these affections from 1851 to 1860, Dr. Haviland concluded that a high death rate from heart disease and dropsy is coincident with an inland or sheltered position; that the lowest amount of mortality is coincident with the greatest amount of exposure to sea air; and that especially those regions most exposed to the prevailing winds have the least mortality. It will be seen that these conclusions are not borne out by a study of the geographical distribution of these diseases in the United States for the census year. In fact, we might almost say that these figures indicate precisely the reverse of nearly all of Dr. Haviland's conclusions.

He gives tables showing that "during the first 10 years of life more males die from heart disease than females, but that after the first decade, up to the one between 75 and 85, the proportional number of deaths from this cause among females is greater than that among males". (*The Geographical Distribution of Heart Disease and Dropsy*, by Alfred Haviland. Folio, page 9. London, 1875.)

The age when the least relative mortality takes place in both sexes is between 5 and 10 years; that when it is greatest lies between 65 and 75 years.

The following diagram indicates the proportion of deaths occurring from heart disease in the 31 registration cities in relation to months of death. It will be seen that the majority of deaths occur in the winter and spring months, the maximum being reached in the month of March:

FIG. 65.—DEATHS FROM HEART DISEASE, BY MONTHS, IN 31 REGISTRATION CITIES.